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A N
E S S A Y
O F
H E A L T H
A N D
L O N G L I F E .

By GEORGE CHEYNE, M. D. F. R. S.

The Second Edition.

Ἀσκήσις Ὑγιάνης, ἀρχαία Τεχνη, ἀρχαία Πό-
ρων. Hippoc.

*At Imbecillis (quo in Numero magna Pars
Urbanorum, omnesque pene Cupidi Li-
terarum sunt) Observatio major neces-
saria est: ut quod vel corporis, vel
Loci, vel Studii Ratio detrahit, Cu-
ra restituat. Cels.*

L O N D O N :

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TO THE
Right Honourable
Sir JOSEPH JEKYLL,
Master of the *ROLLS*.

THIS TREATISE

is inscribed

As a Testimony of Respect,
and Gratitude,

BY

His most obliged
faithful humble Servant,

GEORGE CHEYNE.





T H E

P R E F A C E.



HIS being probably the last Time I may trespass on the Publick, I look upon myself in some Measure obliged to settle my Accounts with the World as an Author, before I make my Exit, by endeavouring to shew I have not always offended out of Presumption, Vanity, or Wantonness.

The

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The first Time I adventured in Print, was on the Account of my great Master and generous Friend, Dr. Pitcairn. He thought himself ill-used by some of his Brethren of the Profession who then were at intestine War on the Subject of Fevers ; and fancied the handsomest Way to bring them down, was to exhibit a more specious Account of this Disease, than any of them had shewn. His Business then in the Practice of Physick was so great, as not to allow him sufficient Time for such a Work. Two others therefore, with myself, were joined to manage the Affair : In which he was to cut and carve, and to add the practical Part. My Province was the Theory. I was then very young in the Profession, and living in the Country. But in a few Days I brought in my Part finished, as it now appears, under the Title of
The

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The New Theory of Fevers. *The others either suppress'd or forgot theirs, and mine, without the least Alteration, but in a few Words, was ordered for the Press. I could not resist the Commands of my Friend; but would not suffer my Name to be put to it, being conscious it was a raw and unexperienced Performance. They are tho' some Things in it which may be of Use to Beginners, both as to the Method of philosophising on the animal Oeconomy, and in the Account of the Manner of the Operation of the greater Medicines. The Foundations also and the Causes assigned for acute and slow Fevers, I still think solid and just, and more particular and limited than those of any other Theory yet published. But it wants so much filing and finishing, so many Alterations and Additions as would cost me more Labour and Pains than the writing a new Treatise on the*
same

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same Subject : So that out of mere Laziness and Inappetency, I have thrown it by as unripe Fruit, and suffered it to be as if it never had been.

My next Sally was in a Book of abstracted Geometry and Algebra, entitled, Methodus Fluxionum Inversa, brought forth in Ambition and bred up in Vanity. There are some Things in it tolerable for the Time, when the Methods of Quadratures, the Mensuration of Ratio's, and Transformation of Curves, into those of other Kinds, were not advanced to such Heights as they now are. But it is a long Time since I was forced to forgoe these barren and airy Studies for more substantial and commodious Speculations : Indulging and Rioting in these so exquisitely bewitching Contemplations, being only proper for publick Professors, and those born to Estates, and who are under no outward

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ward Necessities. Besides, to own a great but grievous Truth, tho' they may quicken and sharpen the Invention, strengthen and extend the Imagination, improve and refine the reasoning Faculty, and are of Use both in the necessary and the luxurious Refinement of mechanical Arts ; yet having no Tendency to rectify the Will, sweeten the Temper, or mend the Heart, they often leave a Stiffness, Positiveness, and Sufficiency on weak Minds, much more pernicious to Society, and the Interests of the great End of our Being, than all the Advantages they bring them can recompence. They are indeed Edge-Tools, not to be trusted in the Hands of any, but those who have already acquired an humble Heart, a lowly Spirit, and a sober and teachable Temper. For in others they are very apt to beget a secret and refined Pride, an over-weening and over-bearing Vanity (the most

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opposite Temper to the true Gospel-Spirit, which, without Offence, I may suppose to be the best Disposition of Mind) that tempts them to presume on a Kind of Omniscience in Respect of their Fellow-Creatures, that have not risen to their Elevation; and to set up for an Infallibility, or at least a decisive Judgment, even in Matters which do not admit of a more or less (their proper Object) of which Kind whatever relates to the infinite Author of our Being most certainly is. Upon all which Accounts, conscious of my own Weakness, I have long since bid them an Adieu, farther than as they serve to amuse, or are useful in the absolute Necessities of Life.

The Defence of that Book against the learned and acute Mr. Abr. de Moivre, being written in a Spirit of Levity and Resentment, I most sincerely

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cerely retract, and wish undone, so far as it is personal or peevish, and ask him and the World Pardon for it; as I do for the Defence of Dr. Pitcairn's Dissertations, and the New Theory of Fevers, against the late learned and ingenious Dr. Oliphant, I heartily condemn and detest all personal Reflexions, all malicious and unmannerly Terms, and all false and unjust Representations, as unbecoming Gentlemen, Scholars, and Christians; and disprove and undo both Performances, as far as in me lies, in every Thing that does not strictly and barely relate to the Argument.

The first Part of the Philosophical Principles, that of Natural Religion, consists merely of Discourses and Lectures of Natural Philosophy, and of its Consequences on Religion, occasionally read or discoursed

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to that most noble and great Person, the Duke of Roxburgh, who is now so great an Ornament to his Country, and his high Employments, to whom they were inscribed. I thought they might be of Use to other young Gentlemen, who, while they were learning the Elements of natural Philosophy, might have thereby the Principles of natural Religion insensibly instilled into them. And accordingly it has been and is still used for that Purpose at both Universities. Upon which Account, upon proper Occasions, I will not fail to improve it in all the new Discoveries in Experimental Philosophy, or in the final and natural Causes of Things as happen to be made, so as to leave it as little imperfect in its Kind as I possibly can.

The second Part of the Philosophical Principles, to wit, that of
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Revealed Religion, was added after-ward, to shew, that all our Knowledge of Nature was by Analogy, or the Relations of Things only, and not their real Nature, Substance, or internal Principles: That from this Method of Analogy (the only Medium of humane Knowledge) we should be necessarily led, to conclude the Attributes or Qualities of the supreme and absolute Infinite, were indeed analogous to the Properties or Qualities of finite Beings, but only in such a Manner as the Difference between Infinite and Finite requires; and that therefore, not being able to know precisely these Differences, we ought implicitly to believe without reasoning what is revealed to us concerning the Nature of the infinite Being; or bring our Reason to submit to the Mysteries of Faith. How I have succeeded is not for me to determine. As the End was honest, I am secure the great Prin-

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Principles and the fundamental Propositions are true and just. They may want a little farther clearing up and Explication: But as yet I have met with no Reason to retract any Thing material; else I should most certainly do it.

The Essay on the Gout and Bath Waters was brought forth by mere Accident. The first Draught being, as I there mentioned, only a Paper of Directions for a Gentleman, my Friend and Patient, troubled with the Gout. It was enlarged upon different Occasions, and published to prevent its being pyrated; several Copies having been given out to others in the same Circumstances. I have the Satisfaction to know from many different Hands, that it has benefited great Numbers of infirm and afflicted Persons; and shall there-

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therefore go on to cultivate it as far as my poor Abilities will permit.

I am now come to this my last Production; whose Origin was as casual as that of my former. My good and worthy Friend, the present Master of the Rolls, having been last Autumn at Bath, for a Confirmation of his Health, at his Departure desired of me to draw up some Instructions in writing to direct him in the Conduct of his Health for the future, and in the Manner of supporting his Spirits free and full, under the great Business he is engaged in. I was then in the Hurry of our Season, and could not so soon answer his Expectation, as his real Worth, and my sincere Esteem required. I thought myself therefore the more obliged as soon as I had Leisure, to exert myself to the uttermost in Obedience to his Commands. At first I drew up most of these

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these Rules at the End of the several Chapters; but, upon Reflexion, thought it not Respect enough to his good Taste and Capacity to judge of the Reasons of Things, to prescribe him bare and dry Directions in Matters of so great Moment. I added therefore the philosophical Account and Reasons of these Rules, which make up the Bulk of the Chapters themselves. He, out of his Love to his Fellow-Citizens (which is one shining Part of his Character, and which I ought to suppose has in this Instance only imposed on his better Judgment) desired they might be made publick. Upon which Account several Things have been since added, to make the whole of more general Use. If therefore any Thing in this Treatise be tolerable, or if any Person receive Benefit by it, they owe it entirely to that excellent Person, upon whose Account
solely

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solely it was undertaken, and at whose Request it is published.

I have indeed long and often observed, with great Pity and Regret, many very learned, ingenious, and even religious Persons, who being weak and tender (as such generally are) have suffered to the last Extremity for Want of a due Regimen of Diet, and other general Directions of Health, who had good Sense enough to understand the Force and Necessity of such Rules, valued Health sufficiently, and despised sensual Gratifications for the Pleasures of the Mind so far, as to be able and willing to abstain from every Thing hurtful, deny themselves any Thing their Appetites craved, and to conform to any Rules for a tolerable Degree of Health, Ease, and Freedom of Spirits; and yet being ignorant how

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to

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to conduct themselves, from what to abstain and what to use, they have suffered even to mortal Agonies ; who, had they been better directed and instructed, had pass'd their Lives in tolerable Ease and Quiet. It is for these, and these only, the following Treatise is designed. The Robust, the Luxurious, the Pot-Companions, the Loose, and the Abandoned, have here no Business ; their Time is not yet come. But the Sickly and the Aged, the Studious and the Sedentary, Persons of weak Nerves, and the Gentlemen of the learned Professions, I hope, by the divine Blessing on the following Treatise, may be enabled to follow their Studies and Professions with greater Security and Application, and yet preserve their Health and Freedom of Spirits more entire and to a longer Date. I am morally certain,

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tain, had I known and been as well satisfied of the Necessity of the Rules here laid down, thirty Years ago, as I am now, I had suffered less, and had had a greater Freedom of Spirits than I have enjoy'd. But every Thing is best as it has been, except the Errors and Failings of our free Wills.

I know no useful Means of Health and Long Life I have omitted, nor any pernicious Custom I have not noted; and have given the plainest and most familiar Reasons I could urge for the Rules I have here laid down. Most of my Arguments (as they needs must) have risen out of the animal Functions and Oeconomy: And I have used as little Subtilty and Refinement in my Explications of these, as the present State of Natural Philosophy could admit. I have been often contented with

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plain and obvious Facts to account for Appearances, and the Cautions thence deduced; when, according to the Humour of the present Age, I might have run into refined Speculations of Metaphysicks, or Mathematicks; being contented with the Crasso Modo philosophari; because we shall never be able to search out the Works of the Almighty to Perfection, so as to penetrate the internal Nature of Things.

*I have consulted nothing but my own Experience and Observation on my own crazy Carcase and the Infirmities of others I have treated, in the following Rules, their Reasons and Philosophy, (so that if any Thing is borrowed, it has occurred to me as my own) but in so far as Authorities go to shorten philosophical Accounts. Not but that all systematick Writers in
Physick,*

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Physick, and many particular Authors, have treated the same Subject: But their Rules, besides that they are often inconsistent with Reason, or contrary to Experience, are so general, and express'd in so unlimited and undefined Terms, as leave little or no Certainty in them; when apply'd to particular Cases, they want the necessary Precision and Exactness, and so become useless or perplexing: and lastly, when they come, (which is rarely to be found among them) to give the Reasons and Philosophy of their Directions, they have not the Perspicuity and natural Way of convincing the ingenious, sickly, and tender Sufferers, so necessary to make them chearfully and readily undergo such severe Restraints; which I take to be by far the most difficult Part of such a Work, and which I have laboured with my utmost Power to supply.

I know

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I know not what may be the Fate and Success of this Performance ; nor am I solicitous about it, being conscious the Design was honest, the Subject weighty, and the Execution the best my Time, my Abilities, and my Health would permit, which cannot bear the Labour of much Fileing and Finishing. Being careful not to incroach on the Province of the Physician, I have concealed nothing my Knowledge could suggest to direct the Sufferer, in the best Manner I could, to preserve his Health and lengthen out his Life : And I have held out no false or delusory Lights to lead him astray, or torment him unnecessarily.

If it were possible any Set of Men could be offended at my Performance, it might be my Brethren of the Profession,

E. The P R E F A C E. xix

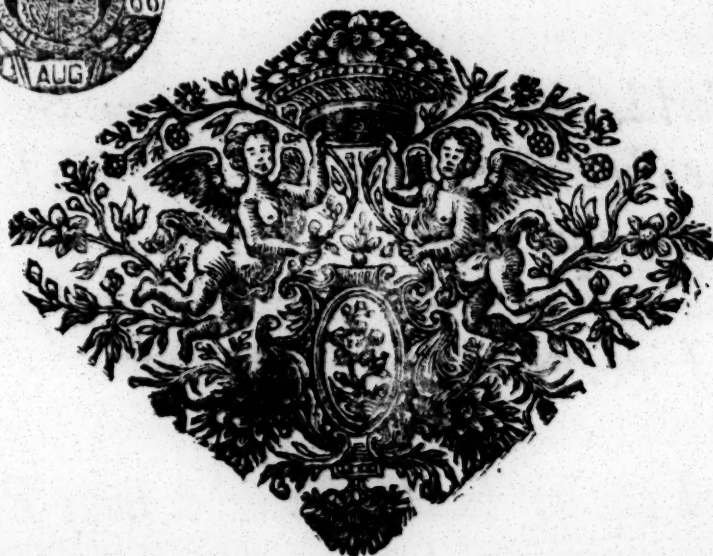
*fession, for endeavouring to lessen the
Materia Morbifica. But as this
would be the most malicious, unjust,
and unworthy Reflexion could be
thrown on Scholars and Gentlemen of
a liberal Education ; so I never enter-
tain'd the most remote Vanity to think
any Endeavour of mine would make
so considerable a Change in the Na-
tion ; especially when the Devil, the
World, and the Flesh were on the o-
ther Side of the Question, which have
stood their Ground even against the
Rules of Life and Immortality brought
to Light by the Gospel.*

*I cannot conclude this tedious Pre-
face without begging Pardon of the
Reader for troubling him with my pri-
vate Matters. All I can say as an Apo-
logy is, that of whatsoever Indiffe-
rence my Concerns as an Author may
be*

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be to him, yet they were not so to me ; this being the only Place and Time I may have to adjust them in, and it being the Height of my Ambition,

Nil conscire mihi, nullâ pallefcere culpâ.



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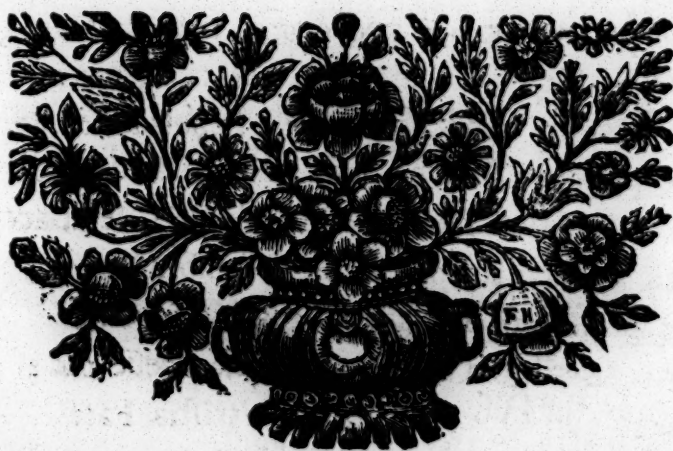
*Clarissimi Medici GEO. CHEYNÆI
Tentamen de Sanitate & Longævitate,
doctum variumque Opus miratus, hæc
effudit * * Virtutum illius Viri Cultor
impensissimus.*

HU C ades, o ! sævum Membris arcere Venenum
Qui cupis, & Morbi semina tetra gravis.
Sive tremens pavidusque vides instare minacem
Scorbutum (ut videas hic Liber, ecce ! docet)
Sive parant atras Hypochondria turgida Nubes,
Quæ Menti offusæ tristia spectra darent ;
Seu Monstri quodcunque imis Penetralibus hæret,
Principium Morbi, mox generanda Lues :
Ecce Opifer præsens, *CHEYNÆUS*, lenit acerbum
In Venis succum, nec tibi Membra dolent ;
Aut pellit tristis simulacra fugacia spectri,
Atque Animo prohibet Gaudia abesse tuo ;
Maturâque Operâ prævertens tristia Fata
Ægrotare vetat, nec doluisse finit.

Perlege (at attentus) culti Documenta Libelli,
Si Te vel sanum vel cupis esse probum :
(Arctè etenim sociata Salus fideliter hæret
Virtuti, Vitio nec Comes esse volet.)

Disce

Disce Voluptates prudens vitare nocentes;
Hinc disce & veris innocuisque frui.
Ut Tibi sit Somnus Lenimen dulce Laborum;
Quæque onerant Mensas dulcia Fercla fient;
Ut vigeant Artus, nec saucia membra laborent;
Hic Gulæ effrænis Crimina mille lege.
Chirurgi Ferrum Te, & tetrica Pharmaca terrent?
Hinc disce ambobus posse carere Malis.



BOOKS

Disce

*BOOKS Printed for and Sold by GEO.
STRAHAN, at the Golden-Ball over-
against the Royal-Exchange in Corn-
hill.*

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A New Theory of Acute and slow continued Fevers; wherein, besides the Appearances of such, and the Manner of their Cure, occasionally, the Structure of the Glands, and the Manner and Laws of Secretion, the Operation of Purgative, Vomitive, and Mercurial Medicines, are mechanically explain'd. To which is prefix'd, An Essay concerning the Improvements of the Theory of Medicine. The Third Edition, with many Additions.

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A N
E S S A Y
O F

Health and Long Life.

§. I.



It is a common Saying, That every Man past Forty is either a *Fool* or a *Physician*: It might have been as justly added, that he was a *Divine* too: For, as the World goes at present, there is not any Thing that the Generality of the better Sort of Mankind so lavishly and so unconcernedly throw away as *Health*, except *eternal Felicity*. Most Men know when they

B are

2 *An ESSAY of HEALTH*

are ill, but very few when they are well. And yet it is most certain, that 'tis easier to *preserve* Health than to *recover* it, and to *prevent* Diseases than to *cure* them. Towards the first, the Means are mostly in our own Power: Little else is required than to *bear and forbear*. But towards the latter, the Means are perplexed and uncertain; and for the Knowledge of them the far greatest Part of Mankind must apply to others, of whose Skill and Honesty they are in a great measure ignorant, and the Benefit of whose Art they can but conditionally and precariously obtain. A crazy Constitution, original weak Nerves, dear-bought Experience in Things helpful and hurtful, and long Observation on the Complaints of others, who came for Relief to this universal Infirmary, *BATH*, have at last (in some measure) taught me some of the most effectual Means of preserving Health and prolonging Life in those who are *tender* and *sickly*, and labour under *chronical* Distempers. And I thought I could not spend my leisure Hours better than by putting together the most general Rules for that Purpose, and setting them in the clearest and strongest Light I could, for the Benefit of those who may



may want them, and yet have not had such favourable Opportunities to learn them.

§. 2. And that I might write with some Order and Connexion, I have chosen to make some Observations and Reflections on the *Non-naturals* (as they are called, possibly because that in their preternatural State they are eminently injurious to human *Constitutions*; or more *probably*, because tho' they be necessary to the Subsistence of *Man*, yet in respect of *him*, they may be considered as *external*, or different from the *internal* Causes that produce *Diseases*) to wit, 1. The *Air* we breathe in. 2. Our *Meat* and *Drink*. 3. Our *Sleep* and *Watching*. 4. Our *Exercise* and *Rest*. 5. Our *Evacuations* and their *Obstructions*. 6. The *Passions* of our Minds: And *lastly*, to add some Observations that come not so naturally under any of these Heads. I shall not consider here how *philosophically* these *Distinctions* are made; they seem to me, the best general *Heads* for bringing in those *Observations* and *Reflections* I am to make in the following Pages.

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§. 3. The Reflection is not more common than just, That he who lives *physically* must live miserably. The Truth is, too great Nicety and Exactness about every minute Circumstance that may impair our Health, is such a Yoke and Slavery, as no Man of a generous free Spirit would submit to. 'Tis, as a *Poet* expresses it, *to die for fear of Dying*. And to forbear or give over a just, charitable, or even generous Office of Life, from a too scrupulous Regard to Health, is unworthy of a *Man*, much more of a *Christian*. But then, on the other Hand, to cut off our Days by *Intemperance*, *Indiscretion*, and guilty *Passions*, to live miserably for the sake of gratifying a *sweet Tooth*, or a brutal *Itch*; to die *Martyrs* to our *Luxury* and *Wantonness*, is equally beneath the Dignity of *human Nature*, and contrary to the *Homage* we owe to the *Author* of our Being. Without some Degree of *Health*, we can neither be agreeable to *ourselves*, nor useful to our *Friends*; we can neither relish the Blessings of *divine* Providence to us in *Life*, nor acquit ourselves of our *Duties* to our *Maker*, or our *Neighbour*. He that *wantonly* transgresseth the *self-evident* Rules

and LONG LIFE. 5

Rules of *Health*, is guilty of a Degree of *Self-Murder*; and an *habitual* Perseverance therein is direct * *Suicide*, and consequently, the greatest Crime he can commit against the *Author* of his Being; as it is flighting and despising the noblest *Gift* he could bestow upon him, *viz.* the *Means* of making himself infinitely *happy*; and also as it is a *treacherous* forsaking the *Post*, wherein his *Wisdom* has placed him, and thereby rendering himself incapable of answering the Designs of his *Providence* over him. The infinitely wise *Author* of *Nature* has so contrived *Things*, that the most remarkable RULES of preserving LIFE and HEALTH are *moral Duties* commanded us, so true it is, that *Godliness has the Promises of this Life, as well as that to come.*

To avoid all useless Refinement, I will lay down only a few plain easily observed Rules, which a Man may readily follow, without any Trouble or Constraint.

* *Self-Murder.*



C H A P. I.

Of A I R.

§. 1. *A* I R being one of the most necessary Things towards the *Subsistence* and *Health* of all *Animals*; 'tis a Wonder to me, that here in *England*, where *Luxury* and all the Arts of *living well*, are cultivated even to a *Vice*, the Choice of Air should be so little considered.

§. 2. From Observations on Bleeding in *Rheumatisms*, and after catching Cold, 'tis evident, that the *Air* with its different *Qualities*, can alter and quite vitiate the whole *Texture* of the Blood and *animal Juices*: From the *Palsies*, *Vertigoes*, *Vapours*, and other *nervous Affections*, caused by *Damps*, *Mines*, and working on some *Minerals*, († particularly *Mercury*

† *Vide* Ramazini of the *Diseases* of *Tradesmen*.

cury and *Antimony*) 'tis plain *Air* so and so qualified, can relax and obstruct the whole nervous *System*. From the *Cholics*, *Fluxes*, *Coughs*, and *Consumptions*, produced by damp, moist and *nitrous Air*, 'tis manifest, that it can obstruct and spoil the noble *Organs*. The *Air* is attracted and received into our *Habit*, and mixed with our *Fluids* every Instant of our *Lives*; so that any ill *Quality* in the *Air* so continually introduced, must in Time produce *fatal* Effects on the animal *OEconomy*: And therefore it will be of the utmost Consequence to every one, to take Care what kind of *Air* it is they sleep and watch, breath and live in, and are perpetually receiving into the most intimate *Union* with the *Principles* of Life. I shall only take Notice of three Conditions of *Air*.

§.3. The *first* is, That when *Gentlemen* build *Seats*, they ought never to place them upon any high *Hill*, very near any great *Confluence* of Water, in the Neighbourhood of any great *Mines*, or Beds of *Minerals*, nor on any swamp, marshy, or mossy Foundation; but either in a *champaign* Country, or on the *Side* of a small Eminence, sheltered from the *North* and
East

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East Winds, or upon a light gravelly Soil. The Nature of the Soil will be well known from the *Plants* and *Herbs* that grow on it, or rather more securely from the Nature of the *Waters* that spring out of it, which ought always to be *sweet, clear, light, soft, and tasteless*. All high *Mountains* are damp, as Dr. *Halley* observed at *St. Helena*, a mountainous Place, where *Damps* fell so perpetually in the Night time, that he was obliged to be every Moment wiping his *Glasses*, in making his *Astronomical* Observations. And where the *Mountains* are high, the Inhabitants of them are forced to send their *Furniture*, in Winter, to the *Valley*, lest it should rot. And 'tis common to have it rain or snow on Mountains, when the Valleys below are clear, serene and dry. All great *Hills* are Nests of *Minerals*, and Covers (made of the prominent Earth) for *Reservoirs* of *Rain-Water*. The Clouds are but great *Fleeces* of rarified Water sailing in the *Air*, sometimes not many Yards above the *champaign* Country; and these high *Hills* intercepting them, they are compressed into *Dew* or *Rain*, and are perpetually drilling down the *Crannies* of
the

the Mountains into these *Basins*. Hence the *Origin of Rivers, and fresh Water Springs*. Besides that, these mountainous Places, are always expos'd to high, and almost perpetual *Winds*. Where any great *Concourse* of Water is, the *Air* must needs be perpetually damp, because the *Sun* is perpetually straining from these *Waters*, moist *Dews* and *Vapours* thro' it. All great Nests of *Minerals*, or large *Mines*, must necessarily impregnate the *Air*, with their respective Qualities. And mossy Blackness, is some Degree of *Putrefaction*, as * *Sir Isaac Newton* observes.

§. 4. *Secondly*, the *Winds* that are most frequent, and most pernicious in *England*, are the *Easterly*, especially the *North East* Winds, which in the *Winter* are the most *piercing* cold, in *Summer* the most *parching* hot. In *Winter* they bring along with them, all the *Nitre* of the *Northern* and *Scythian* *Snows*, *Mountains of Ice*, and *frozen Seas* thro' which they come; and in

C Summer,

* See his *Treatise about Light and Colours*.

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Summer, blow with all the *fiery* Particles of the *perpetual Day* they pass thro'. From the end of *January*, till towards the end of *May*, the Wind blows almost perpetually, from the *Eastern* and *Northern* Points, if the *Spring* is dry; and from the *Southern* and *Western* Points, if the *Spring* is wet, (and generally from the setting in of the *Winds*, on a *New-Moon*, you may predict the Weather of the *Spring*) and our *Bodies* most certainly attracting, the circumambient *Air*, and the *Fumes* of those Bodies that are next to us, it will be very convenient for *valetudinary*, *studious*, and *contemplative* Persons, in a *dry Spring*, or in *Easterly Winds*, to change their Bed-chambers into Rooms that have *Western* or *Southern* Lights, or to shut close up the *Eastern* and *Northern* Lights, or to have them but seldom opened; and in *wet* Seasons, to take the contrary Course. And if any *such* Person, has been much exposed, or long abroad, in a *Northerly* or *bleakish Easterly* Wind, it will be very proper for him to drink down, going to Bed, a large Draught of warm Water-gruel, or of warm small *Mountain-wine* Whey, as an *Antidote* against the
nitrous

nitrous Effluvia, suck'd into the Body, and to open the *Obstructions* of the *Perpiration* made thereby.

§. 5. *Thirdly*, from the beginning of *November* till towards the beginning of *February*, *London* is cover'd over with one universal *nitrous* and *sulphurous* Smoak, from the Multitude of Coal Fires, the Absence of that *material Divinity* the *Sun*, and the Consequence thereof, the falling of the *Dews*, and Vapours of the *Night*. In such a *Season*, *weak* and *tender* People, and those that are subject to *nervous* or *pulmonick* Distempers, ought either to go into the *Country*, or to be at *home* soon after *Sun-set*, and to dispel the *Damps* with clear, warm Fires, and chearful Conversation, go early to Bed, and rise proportionally sooner in the Morning; for, as the *Sun's* Removal suffers the Vapours to fall and condense, in the *Evening*, so his Approach dispels and raises them in the *Morning*. I need not add, that it will be very fit, for those that are *valetudinary*, to have their Servants, Children, Bedfellows, and all those that approach them, with whom they live con-

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stantly, and mix *Atmospheres*, to be as healthy, sound and sweet as possibly they can; and, for their *own sakes*, to have them remov'd till they are made so, if they are otherwise. Nor shall I add any pressing instances, to avoid *wet Rooms*, *damp Beds*, and *foul Linnen*, or to remove *Ordure* and *Nusances*; the *Luxury of England* having run all these rather into a *Vice*.

§. 6. The *Air* is a *Fluid*, wherein Parts of all Kinds of Bodies swim as in *Water*. But *Air* differs from *Water* in this, that the *first* is compressible into a lesser Compass, and smaller *Volume*, like a *Fleece of Wool*, either by its own *Weight*, or any other *Force*, which *Weight* or *Force* being removed, the *Air* immediately recovers its former Bulk and Dimensions again, whereas no *Force* whatever can bring *Water* into narrower Bounds; that is, *Air* is extreamly *elastick* and *springy*, but *Water* is not at all so. Yet the Parts of *Air* would seem to be *grosser* than the Parts of *Water*: For *Water* will get through a *Bladder*, and may be forced through the *Pores* of *Gold*; but *Air* will pass through neither. By this its *elastick Force*, the *Air* insinuates

nuates itself into the patent *Cavities* of all *animal* Bodies; and the *Infant*, which never breathed before, as soon as it is exposed to this *Element*, has the little *Bladders*, whereof the *Lungs* consist, blown up into a *perpendicular* Erection on the Branches of the *Wind-pipe*; whereby the Obstruction, from the Pressure of these *Vesicles* (arising from their being compressed together, and lying upon one another) being in some Measure taken off, the *muscular Action* of the right *Ventricle* of the *Heart* is able to force the Blood through the *Lungs* into the left *Ventricle*. But these little *Bladders*, being thus *inflated* by an *elastick Fluid*, still press so far upon, and grind the grosser *Particles* of the Blood into more *sizeable ones*, that they may become small enough to *circulate* through the other *capillary Vessels* of the Body. This *elastick Air*, pressing equally every Way round, by its *Weight* and *Spring*, shuts close the *Scales* of the *Scarf-skin* of healthy and strong Persons; so that it denies all *Entrance* to the *nitrous* and *watry* Mixture, contained in it, and thus becomes a Kind of *Cold Bath*, to them, and defends them from catching *Cold*: But in *sickly, studious, and sedentary* People,

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ple, and those of weak *Nerves*, where the *Spring* of the *Coverlets* and *Scales*, that defend the Mouths of the *perspiratory Ducts* is weak, the *Perspiration* little or next to none at all, and the Blood *poor* and *sizy*; the *nitrous* and *watry Particles* of the *Air* get a ready and free *Entrance*, by these *Ducts* into the Blood, and by breaking the *Globules* thereof, *coagulating* and fixing its *Fluidity*, quite stop the *Perspiration*, and obstruct all the *capillary Vessels*, the *cutaneous Glands*, and those of the *Lungs* and *alimentary Passages*, when such Bodies are long exposed to such an *Air*: And thus begets all these Disorders in the Body, that *Air* thus and thus *poison'd*, was shewn capable to produce. So long as the *Perspiration* is *strong*, *brisk*, and *full*, 'tis impossible any of these Disorders should happen; because the *Force* of the *perspiratory* Steams outward, is greater than the *Force* whereby these *noxious Mixtures* enter; unless the Body be indiscreetly too long exposed, or the Action of the *nitrous* and *watry Mixtures* be extremely violent. Hence it comes to pass, that those who are very *strong* and *healthy*, and those who have *drank strong Liquors* so plentifully, as to have thereby a brisk

Circulation

Circulation and full *Perspiration*, seldom or never catch *Cold*. And this is the Reason why *rich Foods* and *generous Wines*, moderately used, become so excellent an *Antidote* in *infectious* and *epidemick* Distempers; not only as they banish *Fear* and *Terror*, but as they make so full and free a Stream of *Perspiration*, and maintain so active and brisk an *Atmosphere*, as suffers no *noxious Steams* or *Mixtures* in the *Air* to come within it; but drives and beats off the Enemy to a Distance. But Persons of *viscous*, *heavy Fluids*, of *poor* and *sizy Juices*, of little or no *Perspiration*, such as generally all *studious*, *sedentary*, and *sickly* Persons are, but especially those that are subject to *nervous* Disorders, must necessarily suffer under these *poisonous Mixtures* in the *Air*, if they do not cautiously and carefully fence against them, or take not a present Remedy and *Antidote*, when *tainted*. For besides the *Air* that gets through the *perspiratory Ducts* into the Blood, whenever we Eat, Drink, or Breath, we are taking into our Bodies, such *Air* as is about us. And when the *concoctive* Powers are *weak*, as in such *Persons*, and the *Quantity* of the *Food* is too great, or its *Quality* too strong for them,

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them, the *Chyle* is too gross, and the *perspiratory* Matter is stopped, because too large for these small *Ducts*; and this whole *Mass*, which in *common* Health is more than *double* of the gross *Evacuations*, recoils in upon the *Bowels*, and becomes, as it were, *Spears*, and *Darts*, and *Armour* to the *Air* receiv'd from without; which being thus *sharpened* with the *Salts* of the *unconcocted Food*, together with its own *elastick Force*, pierces the Sides of the *Vessels*, and gets into all the *Cavities* of the Body, and between the *Muscles* and their *Membranes*, and there, in Time, brings forth *hypochondriack*, *hysterick*, *nervous*, and *vapourish* Disorders, and all that *black Train* of *Evils* such Constitutions suffer under.

I shall now draw out the *Cautions* here inculcated into a few general Rules.

General

General Rules for Health and Long
Life, drawn from the Head.

Of AIR.

i. **T**HE healthiest Situation for a *Seat* is in a *champaign* Country, or on the *Side* of a small Eminence, on a *gravelly* Soil, with a *Southern* or *Western* Exposition, sheltered from the *North* and *East* Winds, distant from any great *Concourse* of Waters, or any great *Mines* or Beds of *Minerals*, where the Water is *sweet, clear, light, soft, and tasteless*.

2. *Tender* People on the setting in of *Easterly* and *Northerly* Winds, ought to change their Bed-Rooms for others of *Westerly* and *Southerly* Lights, and the contrary in wet Seasons.

3. Those who have been much exposed to, or long abroad in *Easterly* or *Northerly* Winds, should drink some thin and warm Liquor going to Bed.

4. When the dark, dull, foggy Weather lasts at *London* in Winter, tender
D People,

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People, and those of weak *Nerves* and *Lungs*, ought either to go into the *Country*, or keep much at Home in warm Rooms, go early to Bed, and rise betimes.

5. *Valetudinary* People ought to have their Servants, Children, and Bedfellows, or those they continually approach and converse with, sound, sweet, and healthy, or ought to remove them 'till they are so, if they are otherwise.

6. *Every* one, in order to preserve their Health, ought to observe all the Cleanness and Sweetness in their Houses, Cloaths, and Furniture, suitable to their Condition.





CHAP. II.

Of MEAT and DRINK.

§. I. **T**O have our *Food*, that is, our Meat and Drink, as to *Quantity* and *Quality* duly regulated, and precisely adjusted to our *concoctive Powers*, would be of the utmost Consequence to *Heath* and *Long Life*. Our Bodies require only a *determinate Quantity* thereof, to supply the *Expences* of living : and a just Proportion of that to these would very probably preserve us from *acute*, most certainly from *chronical* Distempers, and enable us to live, without much Sickness and Pain, so long as our Constitutions were originally made to *last*. The Sources of *chronical* Distempers are *first* Viscidity in the Juices, or the Overlargeness of their constituent *Particles*, which not being sufficiently broken, by the *concoctive Powers*, stop or retard the *Circulation*, or, *secondly*, too great abundance of sharp and acrimonious *Salts*,

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whereby

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whereby the Juices themselves are rendered so *corrosive*, as to burst or wear out the Solids; or, *thirdly*, a *Relaxation*, or Want of a due *Force* and Springiness, in the Solids themselves. An Excess in *Quantity* begets the *first*, the ill *Condition*, of our Meat and Drink the *second*, and *both* together, with Want of due Labour, the *third*.

§. 2. The Meat of *England* is generally *animal* Substances. The *Animals* themselves, from *epidemick* Causes, bad Food, Age, or other Infirmities, have their Diseases as well as *human* Creatures: and these diseased Animals can never be proper or sound Food for Men. Adult *Animals* abound more in *urinous Salts* than young ones: Their Parts are more closely compacted, because more forcibly united; and so harder of Digestion. 'Tis true, the great Distinction of the *Fitness* or *Unfitness* of the several Sorts of *Animals* and *Vegetables* for human Food, depends upon their *original Make, Frame, and Nature* (and that can be found out only by Experience) as also upon the *special Taste, Complexion, Temperament, and Habits* of the Person that feeds on them. But by the Help of these

Three

Three Principles, viz. First, That the Strength or Weakness of Cohesion of the Particle, of fluid Bodies, depends upon their *Bigness* or *Smallness*; that is, the *biggest* Particles cohere more firmly, than the *smaller*, because more Parts come into Contact in large Bodies than small, and so their *Union* is greater. Secondly, That the *greater* the Force [*Momentum*] is, with which two Bodies meet, the stronger is their Cohesion, and the more difficult their Separation. Thirdly, that *Salts*, being comprehended by plain *Surfaces*, being *hard*, and in all Changes recovering their Figure, unite the most firmly of any Bodies whatsoever: Their plain *Surfaces* bring many Points into *Contact* and *Union*: their *Hardness* and constant *Figure* make them *durable* and *unalterable*; and thereby the *active Principles*, and the Origin of the Qualities of Bodies; and when they approach within the *Sphere* of one another's *Activity*, they firmly unite in *Clusters*; all which make the Separation of their original *Particles* the more difficult. I say, from these *three Principles*, we may in general compare the Easiness or Difficulty of digesting (that is, breaking into small Parts) the several Sorts of *Vegetables* and

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and *Animals*, one with another; and so discover their *Fitness* or *Unfitness* for becoming Food for tender and *valetudinary* Persons.

1. All other Things being supposed equal, those *Vegetables* and *Animals* that come to *Maturity* the soonest, are *lightest* of *Digestion*. Thus the Spring *Vegetables*, as *Asparagus*, *Straw-berries*, and some Sorts of *Sallading*, are more easily digested than *Pears*, *Apples*, *Peaches*, and *Nectarines*; because they have less of the *solar* Fire in them; their Parts are united by a weaker Heat; that is, with less *Velocity*, and abound less in, nay scarce have any strong and fixed *Salts*. Among the *Animals*, the common Poultry, *Hares*, *Sheep*, *Kids*, *Rabbits*, &c. who in the same, or a few Years come to their *Ma'urity* (that is, to propagate their *Species*) are much more tender and readily digested than *Cows*, *Horses*, or *Asses*, (were these last in use for Food, as they have been in *Famine*) &c. for the Reason already given, because their Parts cohere less firmly. And it is observable, of the *Vegetables*, which are longest a ripening, that is, whose *Juices* have most of the *solar* Rays
in

in them, that their *fermented Juices* yield the strongest *vinous* Spirits; as Grapes, Elder-berries, and the like: and of the *Animals* that are longest in coming to *Maturity*, that their *Juices* yield the most rank and most *fætid* urinous *Salts*.

2. Other Things supposed *equal*, the larger and bigger the *Vegetable* or *Animal* is, in its Kind, the *stronger* and the *harder* to digest is the Food made thereof. Thus a large *Onion*, *Apple*, or *Pear*, and large *Beef* and *Mutton* are *harder* to digest than the *lesser* ones, of the same Kind; not only, as their Vessels being stronger and more *elastick*, their Parts are brought together with a *greater* Force; but also, because the *Qualities* are proportionably more intense in great Bodies of the same Kind: Thus, other Things being equal, a *greater* Fire is proportionably more intensely hot, than a lesser one; and the Wine contained in a larger Vessel becomes stronger than that contained in a lesser; and consequently the Juices of larger *Animals* and *Vegetables* are more rank than the Juices of smaller ones of the same Kind.

3. Other

3. Other Things being equal, The proper Food appointed for *Animals* by Nature, is easier digested than the *Animals* themselves; those *Animals* that live on *Vegetables*, than those that live on *Animals*; those that live on *Vegetables* or *Animals*, that soonest come to *Maturity*, than those that live on such as are longer a ripening. Thus *Milk* and *Eggs* are lighter of Digestion than the *Flesh* of *Beasts* or *Birds*; *Pullets* and *Turkies*, than *Ducks* and *Geese*; and *Partridge*, and *Pheasant* are lighter than *Woodcock* or *Snipe*; because these last, being *long-billed*, suck only *animal* Juices; and for the Reasons already given, *Grass Beef* and *Mutton* are lighter than *stall-fed Oxen* and *Sheep*.

4. All Things else being alike, *Fish* and *Sea-Animals* are harder to digest than *Land-Animals*; because universally their Food is other *Animals*, and the *Salt Element* in which they live compacts their Parts more firmly; *Salts* having a stronger Power of *Cohesion* than other Bodies. And for the same Reason, *Salt Water Fish* is harder to digest than *fresh Water*. Thus the *Sea Tortoise* is harder

to digest than the *Land Tortoise*; and *Sturgeon* and *Turbit*, than *Trout* or *Perch*.

5. Other things being equal, *Vegetables* and *Animals* that abound in an *oily*, *fat*; and *glutinous* Substance, are *harder* to digest, than those of a *dry*, *fleshy*, *fibrous* Substance; because *oily* and *fat* Substances elude the Force and Action of the *concoctive* Powers; and their Parts attract one another, and unite more strongly than other Substances do, (except Salts) as Sir *Isaac Newton* * observes. Their *Softness* and *Humidity* relaxes and weakens the Force of the Stomach, and the Fat and Oil itself is shut up in little *Bladders*, that are with Difficulty broken. Thus *Nuts* of all kinds pass through the *Guts*, almost untouched: *Olives* are harder to digest than *Pease*; *fat* flesh Meat, than the *lean* of the same. *Carp*, *Tench*, *Salmon*, *Eel*, and *Turbit*, are much harder to digest than *Whiting*, *Perch*, *Trout*, or *Haddock*.

6. *Vegetables* and *Animals*, all Things else being alike, whose Substance is *white*,

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* Vide Sir Isaac Newton's first English Edition of *Light and Colours*.

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or inclining to the *lighter* Colours, are *lighter* to digest, than those whose *Substance* is *redder, browner*, or inclining towards the more flaming Colours; not only because the Parts that reflect *white*, and the lighter Colours are lesser in Bulk than those that reflect the more flaming Colours * ; but also because those of the more flaming Colours abound more with urinious Salts. Thus *Turnips, Parsnips, and Potatoes*, are lighter than *Carrots, Skirrets, and Beet-Raves*, *Pullet, Turkey, Pheasant, and Rabbet*, are lighter than *Duck, Geese, Woodcock, and Snipe. Whiting, Flounder, Perch, and Soals*, are lighter than *Salmon, Sturgeon, Herring, and Mackarel*. *Veal and Lamb* is lighter than *Red or Fallow Deer*.

7. *Lastly*, All other Things being equal, *Vegetables and Animals* of a *strong, poignant, aromatick* and hot Taste, are *harder* to digest than those of a *milder, softer*, and more *insipid* Taste. High Relish comes from abundance of Salts: Abundance of Salts supposes *adult Animals*, and such as are long a coming to *Maturity*;

* See the just quoted Author.

Maturity; and where Salts abound, the Parts are more difficultly separated, and harder to be digested. Strong and *aromatick* Plants imbibe and retain most of the *solar* Rays, and become solid Spirits, or fixed *Flames*. And they that deal much in them swallow so much *live-Coals*, which will at last inflame the Fluids and burn up the Solids.

§. 3. There is nothing more certain, than that the greater Superiority the *concoctive* Powers have, over the *Food*, or the stronger the *concoctive Powers* are, in regard of the Things to be *concocted*; the *finer* the *Chyle* will be, the *Circulation* the more free, and the *Spirits* more lightsome; that is, the better will the Health be. Now from these general Propositions, taking in their own particular *Complexion* and *Habits*, *vale-tudinary*, *studious*, or *contemplative* Persons may easily fix upon these particular *vegetable* or *animal* Foods, that are fittest for them. And if any Error should be committed, 'tis best to err on the safest Side, and rather chuse those Things that are under our *concoctive* Powers, than those that are above them. And in the Choice of *Animals* for our Food, we

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must not pass over the Manner of fattening and fitting them up for the Table. About *London* we can scarce have any, but cramm'd *Poultry*, or *stall-fed* Butchery Meat. It were sufficient to disgust the stoutest Stomach, to see the foul, gross, and nasty *Manner*, in which, and the *fetid*, putrid and unwholesome *Materials*, with which they are fed. Perpetual Foulness and Cramming, gross Food and Nastiness, we know, will putrify the *Juices*, and mortify the *muscular* Substance of *human* Creatures; and sure they can do no less in Brute *Animals*, and thus make even our Food Poison. The same may be said of hot Beds, and forcing *Plants* and *Vegetables*. The only Way of having sound and healthful *animal* Food, is to leave them to their own *natural Liberty*, in the free Air, and their own proper *Element*, with Plenty of Food, and due Cleanness, and a Shelter from the Injuries of the Weather, when they have a Mind to retire to it. I add nothing about *Cookery*: Plain Roasting and Boiling is as high, as *valetudinary*, *tender*, *studious*, and *contemplative* Persons, or those who would preserve their Health, and lengthen out their Days, ought to presume on. *Made Dishes*, rich
Soop,

Soop, high Sauces, Baking, Smoaking, Salting, and Pickling, are the Inventions of *Luxury*, to force an unnatural Appetite, and encrease the *Load*, which Nature, without Incentives from ill Habits, and a vicious Palate, will of itself make more than sufficient for *Health and long Life*. *Abstinence* and proper *Evacuations*, due *Labour* and *Exercise*, will always recover a decayed *Appetite*, so long as there is any *Strength* or *Fund* in Nature to go upon. And 'tis scarce allowable to provoke an Appetite, with medicinal Helps, but where the *digestive* Faculties have been spoiled and ruined by acute or tedious *chronical* Distempers. And as soon as 'tis recovered to any tolerable Degree, *Nature* is to be left to its own Work, without any Spurs from *Cookery* or *Physick*.

§. 4. The next Consideration is the *Quantity* of Food that is necessary to support Nature, without overloading it, in a due Plight: That is indeed various, according to the *Age, Sex, Nature, Strength*, and *Country* the Party is of, and the *Exercise* he uses. In these *Northern* Countries, the Coldness of the *Air*, the *Strength* and large Stature of People,

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People, demand larger Supplies than in the *Eastern* and warmer Countries. Young growing Persons, and those of great Strength and large Stature, require more than the Aged, Weak, and Slender. But Persons of all Sorts will live more healthy and longer by universal *Temperance*, than otherwise. And some general Observations on the Quantity Persons of different Nations and Conditions, have lived on, healthy, and to a great Age, may give some Assistance to *valetudin-ry* and *tender* Persons, to adjust the due *Quantity* necessary for them.

§. 5. It is surprising, to what a great Age the *eastern Christians*, who retir'd from the Persecutions into the Desarts of *Egypt* and *Arabia*, lived healthful on a very little Food. We are inform'd by *Cassian*, that the common Measure in twenty four Hours, was about twelve Ounces or a Pound, (for the *eastern* Pound was but twelve Ounces) with mere Element for Drink. St. *Anthony* liv'd to 105 Years, on mere Bread and Water, adding only a few Herbs at last. *James* the *Hermit*, to 104. *Arse-nius*, the Tutor of the Emperor *Arcadius*, to 120: 65 in the world, and 55 in the

the Desert. St. *Epiphanius*, to 115. St. *Jerome*, to about 100. *Simeon Stylites*, 109. And *Romualdus*, 120. And *Lewis Cornaro*, a *Venetian* Nobleman, after he had used all other Remedies in vain, so that his Life was despair'd of at 40, yet recover'd and liv'd, by the mere Force of his Temperance, near to 100 years.

§. 6. Our Northern Climate, as I said from the Purity and Coldness of the Air, which bracing the Fibres, makes the *Appetite* keener, and the Action of Digestion stronger; and from the Labour and Strength of the People, which makes the Expences of living more, will necessarily require a greater Quantity of Food. Yet 'tis wonderful in what Sprightliness, Strength, Activity, and freedom of Spirits, a low Diet, even here, will preserve those that have habituated themselves to it. *Buchanan* informs us, of one *Laurence* who preserved himself to 140, by the mere Force of Temperance and Labour. *Spotswood* mentions one *Kentigern* (afterwards called St. *Mongah*, or *Mungo*, from whom the Famous Well in *Wales* is named) who lived to 185 Years, tho' after he came to the Years of Understanding, he never tasted
Wine

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Wine nor strong Drink; and slept on the cold Ground. My worthy Friend Mr. *Web*, is still alive. He by the Quickness of the Faculties of the Mind, and the Activity of the *Organs* of his Body, shews the great Benefit of a low Diet, living altogether on *vegetable* Food and pure *Element*. The History of the Milk * Doctor of *Croydon*, who by living on Milk only, cured himself of an otherwise incurable Distemper, *viz.* the *Epilepsy*, and liv'd in perfect Health for sixteen Years after, till an *Accident* cut him off, I have already narrated in my Treatise of the Gout. *Henry Jenkins* a Fisherman, liv'd 169 Years, his Diet was *coarse* and *sower*, as his *Historian* informs us, that is, plain and cooling, and the Air where he lived sharp and clear, *viz.* *Allerton* upon *Swale* in *Yorkshire*. *Parr* died sixteen Years younger, *viz.* at the age of 152 Years, 9 Months; his Diet was old *Cheese*, *Milk*, *coarse Bread*, *small Beer*, and *Whey*: And his *Historian* tells us, he might have lived a good while longer, if he had not changed his Diet and Air, coming out of a clear, thin, free Air, into the thick Air of *London*, and after a constant, plain, and

* See an Essay on the Gout and Bath Waters.

and homely country Diet, being taken into a splendid Family, where he fed high, and drank plentifully of the best Wines, whereby the natural Functions of the Parts were overcharged, and the Habit of the whole Body quite disordered; upon which there could not but soon ensue a *Dissolution*. * Dr. *Lifter* mentions eight Persons in the *North of England*, the youngest of which was above 100 Years, and the eldest 140. He says, 'tis to be observed, that the Food of all this mountainous Country is exceedingly coarse. And certainly there is no Place in the World more likely to lengthen out Life than *England*, especially those Parts of it, that have a free open Air, and a gravelly and chalky Soil, if to due *Exercise*, *Abstemiousness*, and a plain simple *Diet* were added.

§. 7. I have † elsewhere offered to determine the *Quantity* of Food, sufficient to keep a Man of an ordinary Stature, following no laborious Employment,

* See *Abr. of Philos. Transact. by Lowth.*

† See the *Essay of the Gout and Bath Waters.*

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ment, in due *Plight, Health*, and Vigour; to wit, 8 Ounces of Flesh Meat, 12 of Bread, or vegetable Food, and about a Pint of Wine, or other generous Liquor in 24 Hours. But the *Valetudinary*, and those employed in *sedentary* Professions, or *intellectual* Studies, must lessen this *Quantity*, if they would preserve their Health, and the Freedom of their Spirits long. *Studious* and *sedentary* Men must of Necessity eat and drink a great deal less, than those very same Men might do, were they engaged in an *active* Life. For as they want that *Exercise* that is necessary towards *Concoction* and *Perspiration*, and that their *Nerves* are more worn out by *intellectual* Studies, than even bodily Labour would waste them; if, in any wise, they indulge *Freedom of Living*, their Juices must necessarily become viscid, and their *Stomachs* relaxed. He that would have a *clear* Head must have a *clean* Stomach. The Neglect of which is the Cause, why we see so many *hypochondriacal*, melancholy, and vapourish Gentlemen, among those of the *long Robe*; the only Remedy of which is *Labour* and *Abstinence*.

§. 8. Most of all the *chronical* Diseases, the *Infirmities* of old Age, and the *short* Periods of the Lives of *Englishmen*, are owing to *Repletion*. This is evident from hence; because *Evacuation* of one Kind or another is *nine* Parts of *ten* in their Remedy: For not only *Cupping*, *Bleeding*, *Blistering*, *Issues*, *Purging*, *Vomiting*, and *Sweating*, are manifest *Evacuations*, or Drains to draw out what has been superfluously taken down; but even *Abstinence*, *Exercise*, *Alteratives*, *Cordials*, *Bitters*, and *Alexipharmicks*, are but several means to dispose the gross Humours to be more readily evacuated by insensible *Perspiration*; that new and well concocted *Chyle*, and sweet comminuted Juices, may take their Place to restore the Habit. And therefore it were much more easy, as well as more safe and effectual, to prevent than incur the Necessity of such *Evacuations*. And any one may lose a *Pound* of Blood, take a *Purge*, or a *Sweat*; by dropping the great Meal, or abstaining from *animal* Food and *strong* Liquors, for four or five Days (in *chronical* Cases) as effectually as by opening a *Vein*, swallowing a Dose of *Pills*, or taking a sudorifick *Bolus*.

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§. 9. I advise therefore all Gentlemen of a *sedentary Life*, and of *learned Professions*, to use as much *Abstinence* as possibly they can, consistent with the Preservation of their *Strength* and Freedom of *Spirits*: Which ought to be done as soon as they find any *Heaviness*, *Inquietudes*, restless Nights, or Aversion to Application; either by lessening one half of their usual Quantity of *animal Food* and *strong Liquors*, 'till such Time as they regain their wonted Freedom and Indolence; or by living a due Time wholly upon *vegetable Diet*, such as *Sago*, *Rice*, *Pudding*, and the like, and drinking only a little Wine and Water. And if they would preserve their *Health* and Constitution, and *lengthen* out their Days; they must either inviolably live low (or *maigre*, as the *French* call it) a Day or two in the Week; or once a Week, Fortnight, or Month at farthest, take some *domestick Purge*, which shall require neither *Diet*, nor keeping at *Home*; but may as once strengthen the Bowels, and discharge superfluous *Humours*. Of this Kind are a Dose (6 or 7) of the *Scotch Pills*; half a Dram of the *Pilula Stomachica cum Gummi*, with three or four Grains

and LONG LIFE. 37

Grains of *Diagryd*, mixt; half a Dram of the *Pilula Ruffi*; two Ounces of *Hiera Piera*, with one Dram of the Syrup of *Buckthorn*; two or three Ounces of *Elixir Salutis*; or (what I prefer before all these) this Preparation of *Rhubarb*:

Take the best *Rhubarb* in Powder two Ounces and a half; Salt of *Wormwood* a Dram; *Orange Peel* half an Ounce; grated *Nutmeg* two Scruples; *Cochineal*, half a Dram. Infuse 48 Hours by a warm Fire-side, in a Quart of true *Arrack*. Strain it off, and put it in a well corked Bottle for Use.

Of this two or three Spoonfuls may be taken, two or three Times a Week, or at Pleasure, with great Safety and Benefit, without Interruption of Business, or Studies, and continued even to mature old Age, if found necessary. So true is old *Verulam's* Aphorism: * *Nihil magis conducit ad Sanitatem & Longævitatatem*

* Nothing contributes more to Health and Long Life, than frequent Family Purges.

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tatem quam crebrae & domesticæ purgationes. And the Gentlemen of the *long Robe*, those of *learned* Professions and *contemplative* Studies, must of Necessity at last take Sir *Charles Scarborough's* Advice, as 'tis said, to the Dutchess of *Portsmouth*: *You must eat less, or use more Exercise, or take Physick, or be sick.*

§. 10. Those who have written about *Health* have given many *Rules*, whereby to know when any Person has exceeded at a *Meal*: I think, there needs but this *short* one, which is; If any Man has eat or drank so much, as renders him unfit for the *Duties* and *Studies* of his Profession (after an Hours sitting quiet to carry on the Digestion;) he has overdone. I mean only of those of *learned* Professions and *studious* Lives; for those of *mechanical* Employments must take the Body, the other Part of the *compound*, into Consideration. If *tender* People, and those of *learned* Professions would go by this *Rule*, there would be little Use for *Physick* or *Physicians* in *chronical* Cases. Or if they would but eat only one Part of *animal* Food, at the great Meal, and make the other two of *vegetable* Food; and drink only Water with

with a Spoonful of Wine, or clear small Beer; their Appetites would be a sufficient Rule to determine the Quantity of their Meat and Drink. But *Variety* of Dishes, the *luxurious* Artfulness of *Cookery*, and swallowing *rich Wine* after every Bit of Meat, so lengthen out the *Appetite*; the Fondness of Mothers, and the Cramming of Nurses have so stretched the Capacities of Receiving, that there is no Security from the *Appetite* among the better Sort. 'Tis amazing to think how Men of *Voluptuousness*, *Laziness*, and *poor Constitutions*, should imagine themselves able to carry off *Loads* of high-seasoned Foods, and inflammatory Liquors, without Injury or Pain; when Men of *mechanick* Employments, and *robust Constitutions*, are scarcely able to live healthy and in Vigour to any great Age, on a simple, low, and almost *vegetable* Diet.

§. II. Since then our *Appetites* are deceitful, and *Weight* and *Measure* troublesome and singular; we must have Recourse to a *Rule* independent of our *Sensations*, and free from unnecessary Trouble and Pain. To answer which, I know nothing but Eating and Drinking by our *Eye*:

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Eye: that is, determining first of all either by *Weight* or *Measure*, or by particular Observation or *Experiment*, the Bulk, or Number of Mouthfuls of Flesh Meat, and the Number of Glasses of strong Liquors, *under* which we are best; and then by our *Eye* determining an equal Quantity at all Times for the future: Thus the two Wings of a middling *Pullet*, or one Wing and both Legs; three Ribs of a middling Neck of *Mutton*, two middling Slices of a Leg or Shoulder, throwing away the *Fat* and the *Skin*; somewhat less of *Beef*, may be sufficient for Flesh Meat, at the great Meal. For we are so wisely contrived, that our Food heed not be adjusted to *mathematical* Points: A little over or under will make no Difference in our Health. As for *Pork*, and all Kinds of *Hog's* Flesh, I think they ought to be forbidden *valerudinary* and studious People, as they were the *Jews*: They feed the foulest of any Creature, and their Juices are the *rankest*; their Substance the most *surfeiting*, and they are the most subject to cutaneous Diseases and Putrefaction, of any Creature; insomuch, that in the Time of a *Plague*, or any *epidemical* Distemper, they are universally destroyed by

by all wise Nations, as the *Southern* People do mad Dogs in the hot Months. The same Censure I should pass upon all *Fish*. Most *Fish* live in a *saltish* Element, and come only into *fresh Water* Rivers, for the Quietness and Conveniency of bringing forth their young ones. This makes their Parts more closely united and harder of Digestion. Besides, as I have before observed, they feed upon one another, and their *Juices* abound with a *Salt* that corrupts the *Blood*, and breeds *chronical* Diseases. And 'tis always observable, that those who live much on *Fish* are infected with the *Scurvy*, *cutaneous Eruptions*, and the other Diseases of a *foul* Blood. And every Body finds himself more thirsty and heavy than usual after a full Meal of *Fish*, let them be ever so fresh; and is generally forced to have Recourse to *Spirits* and distilled Liquors to carry them off: So that it is become a *Proverb*, among those that live much upon them, that *Brandy* is *Latin* for *Fish*. Besides, that after a full Meal of *Fish*, even at Noon, one never sleeps so sound the ensuing Night; as is certain from constant Observation. These few Hints may serve the *valetudinary* Person, in a gross Manner, to judge by

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the *Eye* the *Quantity* of solid Flesh Meat he takes or ought to take down: For I judge the mention'd Quantities to be rather a little under than over *eight Ounces*. As to *Broths*, *Soops*, and *Jellies*, if they be strong, I account them equal in *Non-rishment* and harder to digest than the same Weight of solid Flesh Meat; and three or four common Spoonfuls, at most, make an *Ounce* in Weight in Liquids; and about double the Number of Bits commonly swallowed at once make the same Weight in solid Flesh Meat; for Exactness is not here requisite.

§. 12. *Drink* is the other Part of our Food. The common *Drink* here in *England* is either Water, Malt-Liquor, or Wine, or Mixtures of these; for *Cyder* and *Perry* are drank but in few Places, and rather for Pleasure and Variety than common Use. Without all peradventure, Water was the primitive, original *Beverage*, as it is the only Simple *Fluid* (for there are but *three* more in Nature, *Mercury*, *Light*, and *Air*, none of which is fit for human *Drink*) fitted for *diluting*, *moistening* and *cooling*; the Ends of *Drink* appointed by *Nature*. And happy had it been for the *Race* of Mankind other
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mixt and *artificial* Liquors had never been invented. It has been an agreeable Appearance to me to observe, with what *Freshness* and *Vigour*, those who, tho' eating freely of *Flesh Meat*, yet drank nothing but this *Element*, have lived in *Health*, *Indolence*, and *Chearfulness*, to a great Age. *Water* alone is sufficient and effectual for all the Purposes of *human Wants* in *Drink*. Strong Liquors were never designed for common Use: They were formerly kept (here in *England*) as other Medicines are, in *Apothecaries Shops*, and prescribed by *Physicians*, as they do *Diascordium* and *Venice-Treacle*; to refresh the *Weary*, to strengthen the *Weak*, to give Courage to the *Faint-hearted*, and raise the *Low-spirited*. And it were as just and reasonable to see Men (and if they go on, it is not impossible I may hear of it, since *Laudanum* is already taken into *Feasts* and *Entertainments*) sit down to a Dish of *Venice-Treacle*, or Sir *Walter Raleigh's Confection*, with a Bottle of *Hysterick Cordial*, as to a Dish of *Crawfish-Soop*, an *Ox-Cheek* or *Venison-Pasty*, with a Bottle of *Hermitage*, or *Tockay*, or which some prefer to either of them, a Bowl of PUNCH. *Wine*

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is now become as common as *Water*; and the *better Sort* scarce ever dilute their Food with any other Liquor. And we see, by daily Experience, that (as natural Causes will always produce their proper Effects) their Blood becomes inflamed into *Gout*, *Stone*, and *Rheumatism*, raging *Fevers*, *Pleurisies*, *Small Pox*, or *Measles*; their Passions are enraged into *Quarrels*, *Murder*, and *Blasphemy*; their Juices are dried up; and their Solids scorch'd and shrivel'd. Those whose Appetite and Digestion is good and entire, never want strong Liquors to supply *Spirits*: Such *Spirits* are too volatile and fugitive for any solid or useful Purposes in Life. Two Ounces of *Flesh Meat*, well digested, beget a greater Stock of more durable and useful *Spirits*, than ten Times as much *strong Liquors*, which nothing but *Luxury* and *Concupiscence* makes necessary. Happy those, whom their *Parents*, their natural Aversion to strong Liquors, or whom kind *Providence* among the *better Sort*, has brought to the Age of *Maturity* and *Discretion*, without dealing in or desiring any great *Quantity* of *strong Liquors*: Their *Passions* have been calmer, their *Sensations* more

more *exquisite*, their *Appetites* less *unruly*, and their *Health* more uninterrupted, than any other *natural Cause* could have produced. And thrice happy they, who continue this Course to their last Minutes. Nothing is more ridiculous than the common *Plea* for continuing in drinking on, large *Quantities* of *spirituous Liquors*; viz. Because they have been accustomed so to do, and they think it *dangerous* to leave it off, all of a sudden. It were as reasonable for him that is fallen into the *Fire* or *Water* to lie there, because of the Danger of removing him suddenly. For neither *Element* will destroy him more certainly, before his Time, than wallowing in *strong Liquors*. If the *Quantity* of strong Liquors they have been accustomed to, may be supposed prejudicial to their *Health*, or to introduce *noxious Humours* into the *Habit*; the sooner a Stop be put to it, the better. No Man is afraid to forbear *strong Liquors* in an *acute* Distemper, what *Quantity* soever he might have drank in his Health: And yet any sudden Change of the *Humours* would not only be more *dangerous* then, than at any other Time; but also would more readily happen and come to pass, in such critical Cases. For the whole *System* of

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of the *Fluids*, being in a *Fermentation*, small Changes or Errors then, would not only be more fatal, but more plain and obvious. And if a Person be in Hazard by such a *sudden* Alteration, he cannot live long by taking down so much *Poison*. But the Matter of *Fact* is false and groundless. For I have known and observed constant good Effects from leaving off suddenly great Quantities of *Wine* and *Flesh Meats* too, by those long accustomed to both, am ready to name the Persons, and never observed any ill Consequence from it in any Case whatsoever. Those whose Constitutions have been *quite broken*, and running into *Dissolution*, have lived longer, and been less pained in Sicknes by so doing: And those who have had a *Fund* in Nature to last longer, have grown better, and attained their *End* by it. I allow every Man, that has been accustomed to drink *Wine*, or *strong Liquors*, a Pint in 24 Hours: And I am well satisfied, that *Quantity* is sufficient for *Health*, let their Custom have been what it will. Their *Spirits* may indeed *flag* and *sink* a little at first, for Want of introduced *Quicklime* and *Fire*. But *Low-spiritedness*, in such a Case, I count no *Disease*. And bearing

bearing it for some Time, is bountifully recompenced by the *Health, Indolence, and Freedom of Spirits*, they afterwards enjoy: Not taking into Consideration their being rescued from the Tyranny of so *immoral* and mischievous a *Habit*. It may be sufficient for those who are tender, studious, or contemplative, to drink three Glasses of Water with a Spoonful of Wine at the *great Meal*. And as Sir *W. Temple* has it, One for your *Self*, another for your *Friends*, a third for *good Humour*, and a fourth for your *Enemies*, are more than sufficient after it.

§. 13. A great Mistake committed in this Affair is, that most People think the only *Remedy* for *Gluttony* is *Drunkenness*, or that the Cure of a *Surfeit of Meat* is a *Surfeit of Wine*: Than which nothing can be more false, or contrary to Nature; for, 'tis *lighting*, as the Saying is, *the Candle at both Ends*. For, first of all, *Wine* and all other strong Liquors are as hard to digest, and require as much *Labour* of the *concoctive Powers*, as *strong Food* itself. This is not only evident with Respect to People of *weak Stomachs*, but also from hence, that healthy

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thy People who drink only *Water*, or weak *small Beer*, shall be able to eat and digest almost double of what they could, did they drink *strong Liquors* at their *Meals*, as every one that pleases may experience. *Water* is the only universal Dissolvent or *Menstruum*, and the most certain Diluter of all Bodies proper for Food; tho' there are a great many that *spirituous Liquors* not only will not dissolve, but will *harden*, and make more *undigestible*; especially the *Salts* of Bodies, wherein their *active Qualities*, that is, those which can do most *Harm* to *human Constitutions*, consist. And I have known Men of *weak* and *tender Constitutions*, who could neither eat nor digest upon drinking of *Wine*, who, by drinking at Meals common *Water* heated, have recovered their *Appetites* and *Digestion*, have thriven and grown plump. 'Tis true *strong Liquors*, by their *Heat* and *Stimulation* on the *Organs* of Concoction, by encreasing the *Velocity* of the Motion of the *Fluids*, and thereby quickening the other *animal Functions*, will carry off the Load that lies upon the *Stomach*, with more present Chearfulness: Yet, besides the future Damages of such a *Quantity* of *Wine*, to the *Stomach* and

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and to the *Fluids*, by its Heat and *Inflammation*, the *Food* is hurried into the Habit, *unconcocted*, and lays a *Foundation* for a *Fever*, a Fit of the *Cholick*, or some *chronical* Disease.

§. 14. Another *Mistake* I shall observe, is the extreme Fondness Persons of the *better Sort* here in *England*, have lately run into, for the strong and *high Country Wines*. I can think of no Reason for this, but the very honest one the *Vulgar* give for drinking *Brandy*: that they get sooner drunk on it. For surely the middling lighter Wines, *inflame* the *animal Juices* less, go more easily off the *Stomach*, and afford more Room for long *Conversation* and Chearfulness. *Excess* in them, gives less Pain, and is sooner remedied. But there are Degrees in this Matter. * *Nemo repente fuit turpissimus*. They begin with the weaker Wines; these by *Use* and *Habit* will not do, they leave the *Stomach* sick and *mawkish*, they must fly to stronger Wine, and stronger still, and run the † *Climax*, through *Brandy* to *Barbadoes Waters*, and double distill'd Spirits, 'till at last they can find nothing

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* No Body becomes extremely bad all at once.

† Rise higher by Degrees.

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hot enough for them. People who have any Regard for their *Health* or *Lives*, ought to tremble at the first *Cravings* for such poysonous Liquors. *Strong Waters* should never be taken but by the *Direction* of a *Physician*, or in the *Agonies* of *Death*. For when Persons arrive at that State, that they become necessary to their *Ease* and *Freedom* of *Spirits*; they may be justly reckoned among the *Dead*, both as to the short Time they have to live, and the little Use they can be of either to themselves or Mankind. I speak not here of those who are under an actual *Fit* of the *Gout*, or *Cholick* in the *Stomach*. (*We must not die for fear of dying.*) Nor am I recommending *sour Verjuice* or *unripe Wines*. But I cannot help being well satisfied both from *Reason* and *Experience*, that the *light Wines*, of a *moderate Strength*, due *Age* and full *Maturity*, are much preferable for *Chearfulness* and *Conversation*, much more wholesome for human *Constitutions*, and much more proper for *Digestion* than the hot and strong Wines. The rich, strong, and heavy Wines ought never to be tasted without a sufficient Dilution of Water; at least they should be used, like Brandy or Spirits, for a Cor

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dial *. *Ad summum tria pocula sume.*
 Whatsoever is more cometh of Sin,
 and must be diluted with the Waters of
Repentance.

§. 15. I have no Intention here to
 discourage the innocent Means of *enliven-*
ing Conversation, promoting *Friendship*,
 comforting the *sorrowful* Heart, and rais-
 ing the *drooping* Spirits, by the *cheer-*
ful Cup and the *social Repast*. Perhaps I
 may like the harmless *Frolick*, the *warm*
Reception of a Friend, and even the †
Dulce Furere itself, more than I ought:
 Persons sober in the main, will receive
 little Prejudice from such a *Fillip*, when
 the Occasions happen but seldom, and
 especially when they make it up, by a
 greater Degree of *Abstinence* afterwards.
 But a *Sot* is the lowest Character in Life.
 Did only the *Profligate*, the *Scoundrel*, the
Abandon'd, run into these Excesses, it were
 in vain to endeavour to reclaim them,
 as it were, to stop a *Tempest*, or calm a
Storm. but now that the *Vice* is be-
 come *Epidemical*, since it has got not
 only among *Mechanicks* and *Tradesmen*,
 but among Persons of the brightest Ge-
 nius,

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nius,

* i. e. At most to take but three small Glasses of such.

† Horat. i. e. An agreeable Frolick or Extravagance.

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nus, the finest *Taste*, and the most accomplished *Parts*; and (oh that I could give my Conscience the *Lye*, in mentioning them!) even among the *first* and *least* fallen Part of the *Creation* itself, and those of them too, of the most elegant *Parts*, and the strictest *Virtue* otherwise; and which is still the most surprising of all, even those too, who are in all other Respects blameless. Since I say the Case is so, it will not be amiss to shew, to the Evidence of a *Demonstration*, the Folly as well as the Fruitlessness of such a Course. A Fit of the *Cholick*, or of the *Vapours*, a *Family-Misfortune*, a *casual Disappointment*, the *Death* of a *Child*, or of a *Friend*, with the Assistance of the *Nurse*, the *Midwife*, and the next *Neighbour*, often give Rise and become the weighty Causes of so fatal an Effect. A little *Lowness* requires *Drops*, which pass readily down under the Notion of *Physick*; Drops beget *Drams*, and *Drams* beget more *Drams*, 'till they come to be without Weight and without Measure; so that at last the miserable Creature suffers a true *Martyrdom*, between its natural *Modesty*, the great Necessity of concealing its Cravings, and the still greater one of getting them satisfied *some how*. Higher and more
severe

severe Fits of *Hystericks*, *Tremors*, and *Convulsions*, begot by these, bring forth farther *Necessity* upon *Necessity*, of *Drops*, *Drams*, and *Gills*, 'till at last a kind *Dropsy*, *nervous Convulsions*, a *nervous Atrophy*, or a *colloquative Diarrhæa*, if not a *Fever*, or a *Frenzy*, set the poor *Soul* free. It has very often raised in me the most melancholy *Reflexions*, to see even the *Virtuous*, and the *Sensible*, bound in such Chains and Fetters, as nothing less than *omnipotent Grace*, or the *unrelenting Grave* could release them: They were deaf to *Reason* and *Medicine*, to their own *Experience*, and even to the express Words of *Scripture*, that says, the *Drunkard shall not inherit the Kingdom of Heaven*. Did this bewitching *Poison* actually cure or relieve them, from Time to Time; something might be said to extenuate the *Folly* and *Frenzy* of such a Course. But, on the contrary, it heightens and enrages all their Symptoms and *Sufferings*, ever afterwards, excepting the few Moments immediately after taking it down; and every *Dram* begets the Necessity of two more, to cure the ill *Effects* of the *first*; and one Minutes Indolence they purchase with many Hours of greater *Pain* and *Misery*; besides the making the *Malady*,

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lady more incurable. *Low-spiritedness* in itself is no Disease; besides that there are *Remedies* in *Art* that will always relieve it, so long as there is any *Oil* remaining in the *Lamp*; and 'tis in vain to try to raise the *Dead*. *Exercise*, *Abstinence*, and proper *Evacuations*, with *Time* and *Patience*, will continually make it *tolerable*, very often they will perfectly cure it. The running into *Drams* is giving up the whole at once; for neither *Laudanum* nor *Arsenick* will kill more certainly, although more quickly. The Pretence of its being *Physick*, or a present *Remedy*, is trifling. *Cordials* of any Kind, even out of the *Apothecaries* Shops, are but *Reprieves* for a Time, to gain a *Respite*, 'till proper and extirpating *Remedies* can take Place; and are never to be used twice, the one immediately after the other, but in the last Necessity. And I can honestly say, I never failed of relieving, so as to make Life *tolerable*, *vapourish*, *hysterical*, or *hypocondriacal* Persons, who would be governed in their *Diet*, by the Use of other proper *Means*, if there was a *Fund* in *Life*, and no *incurable* Disease, complicated with *Lowness*. Thus much the *Weight* of the Subject forced from one:

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more than this, its *Disagreeableness* hinders me to say.

§. 16. Next to *Drams*, no Liquor deserves more to be stigmatized and banished the Repasts of the *Tender, Valetudinary, and Studious*, than PUNCH. 'Tis a Composition of such Parts, as not one of them is *salutary*, or kindly to such *Constitutions*, except the pure Element in it. The principal *Ingredient* is *Rum, Arrack, Brandy, or Malt Spirits*, as they are called, all of them raised by the *Fire*, from the *fermented Juices* of Plants, brought from *Southern Countries*, or which have longest born the *Heat of the Sun* in our own *Climate*: And 'tis observable, that every Thing that has past the *Fire*, so that it has had due Time to divide and penetrate its Parts, as far as it possibly can, retains a *caustick, corrosive*, and burning *Quality* ever afterwards. This is evident from the *fiery and burning Touch and Taste* of new-drawn *Spirits*, as also from the *burning* of *Lime-stone*, which, tho' extinguish'd by Boiling Water, does ever after retain its heating and drying *Quality*, as appears from the great Use of *Lime-Water*, in drying up all *humid Sores*, when given inwardly by itself, or compounded with

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with *sudorific* Woods and Roots, and from its *Success* in outward Applications for the same Purposes. And tho' Time may in some Measure get the better of this, in its sensible and obvious Operations, yet since *Water* is a grosser Body than *Fire*, or *Flame*, it never can penetrate it so far as quite to extinguish its inmost *Heat*; especially if we consider, that *Spirits* are but an *Accumulation* of fine *Salts* and light *Oil*, compacted together into the smallest *Volume*; the *first* whereof is so hard and solid, as naturally to retain their *Heat* the longest, into which *Water* cannot enter; the other, *to wit* the *Oyle*, is so inflammable, that it most readily receives *Heat* and *Fire*, and defends the *Salts* from the Power of *Water* over them. And in the continued *Distillation* of *Spirits*, this Action of the *Fire* is so strong, as to reduce them to liquid *Flames* at last, which will of themselves evaporate in visible *Flames* and *Fumes*. The other principal Part of the *Composition* is the *Juice of Oranges* and *Lemons*. And if we consider, that a *Lemon* or *Orange* could never be transported *half Seas* over to us, without rotting or spoiling, if gathered when wholly *ripe*, we should have no great Opinion of their *Juices*. Every *Spanish* or *Portugal* Merchant can in-

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form us, that they must be gathered green, or at least a *Month* before they are ripe, else they are not fit to be sent beyond the *Seas*. The *Sea-Air*, and their being shut up *close*, gives them that golden yellow Colour, we so much admire. The *Juice* of a *Crab Apple*, of *unripe Grapes*, or *Goose-berries*, or even good *Juice* of *Sorrel*, would come up at least to their *Virtue* of extinguishing the Heat of *Spirits*, if not to their *Flavour*. And how kindly a *Guest* such *Juices* would be to the *fine Fibres* of weak *Stomachs* and *Bowels*, I leave every one to judge. The Truth is, all *fermenting Juices*, such as these *eminently* are, must be highly injurious to *weak Constitutions*; for meeting with the *Crudities* in the *Bowels*, they must raise a new *Battle* and *Col- luctation* there, and so must blow up the whole *Cavities* of the *human Body*, with acrid *Fumes* and *Vapours*, the great and sore Enemy of such *Bowels*. And in the *West Indies*, where from the Necessity of drinking much, because of the Violence of the *Heat*, and from the Want of proper *Liquors* there, they are forc'd to drink much *PUNCH*, tho' *Lemons* and *Oranges* be in their full Perfection, they are universally afflicted with *Nervous* and *Mortal dry-Belly-aches*, *Palsies*,
I Cramps,

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Cramps, and *Convulsions*; which cure them off in a few Days, entirely owing to this *poisonous* Mixture.

The *Bath-Water* is the only *Remedy* in such Cases, whither they all hasten, if they can get thither *alive*. And here I have been inform'd of this *Fact*, by Men of the *Profession*, as well as their *Patients*, who universally ascrib'd them to their drinking of *PUNCH* and *Spirituuous Liquors*. If *Acids* must be had without all peradventure, the *Vinous* ones, are the best and safest. The *Romans*, tho' they had the vegetable *Acids* in Perfection, made very little Use of them but in *Cookery*, where the *Quantity* of the *Poison* was so small, as not to do sufficient Harm, to forbid their using them for the Sake of the exquisite Relish they gave their *Sauces* and the constant Drink of the lower *Souldiery* was *Vinegar* and *Water*, which they found of excellent Use, both as it prevented *Fevers*, *Plagues*, and *Putrefaction*; and also as it gave an *Energy* to the unactive *Element*, and hindered it from *lodging* in the Body. Hence also the great Use of *Oxymel* and *Oxybate*, (that is, of *Vinegar* with *Honey* and with *Water*) among all the antient *Physicians*. And indeed, whenever they

they prescrib'd an *Acid*, they very prudently join'd a Corrective with it, both to promote its *good*, and to prevent its *bad* Effects. The two remaining *Ingredients* are *Sugar* and *Water*; and these I will give up to the *Punch-Drinkers*, and allow them all the Benefit of them, they can bring to this *Composition*: Yet it will still have *Malignity* sufficient remaining, to be held in Detestation, (at least for any great *Use*, or in any great *Quantity*, for some *Poisons* are so only by their *Quantity*) by those *tender* and *valetudinary* Persons, who value *Health* and *Life*. The *Strong*, the *Voluptuous*, and the *Abandoned*, need no *Advice*, at least they will take none. I could never see any Temptation, for any one in their Senses, to indulge in this *Heathenish* Liquor, but that it makes its Votaries the soonest, and all of a sudden the deepest *Drunk*, holds them longest in the Fit, and deprives them the most entirely of the Use of their *Intellectual Faculties*, and *Bodily Organs*, of any Liquor whatsoever. It is likest *Opium*, both in its Nature, and in the Manner of its Operation, and nearest *Arsenick* in its *deleterious* and *poisonous* Qualities: And so I leave it to them,

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Who knowing this, will yet drink on and die.

§. 17. As to Malt Liquors, they are not much in Use, excepting *small Beer*, with any but *Mechanicks* and *Fox-hunters*. The *French* very justly call them *Barley-Soop*. I am well satisfied, a *weak Stomach* can as readily and with less Pain, digest *Pork*, and *Pease-Soop*, as *Torkshire* or *Nottingham Ale*. They make excellent *Bird-lime*, and when *simmer'd* some time over a gentle Fire, make the most sticking, and the best *Plaister*, for *old Strains* that can be contriv'd. Even the *small Beer* that is commonly drank at *London*, if it be not *well Boiled*, very *Clear*, and of a *due Age*, must be hurtful to Persons of *weak Nerves*, and *slow Digestion*. For *fermenting* again in the *alimentary Channels*, it will fill the whole *Cavities* of the Body with Windy *Fumes* and *Vapours*, which will at Length play odd *Pranks* in a *crasy* Constitution. In Fine, the *Valetudinary*, *Studious*, and *Contemplative*, must be contented with a *Pint* of *middling, light Wine* a Day, one half with, and the other without Water.

§. 18. Since the Time *foreign Luxury* has been brought to its Perfection here, there

there are a kind of Liquors in Use among the better Sort, which some great *Doctors* have condemn'd, by *Bell, Book,* and *Candle*, and others have as extravagantly commended: I mean, *Coffee, Tea,* and *Chocolate*. For my own Part, I take all their *Virtue* to consist in *Custom*, and all their *Harm* in *Excess*. As to *Coffee*, it is a meer *Calx*, or a Kind of burnt *Horse Bean*, but lighter on the Stomach, and of somewhat a better Flavour. The *Turks* use it, and *Opium* instead of *Brandy*. But the Plea that some make for running into Excess in it, from this *Mahometan* Custom, is altogether weak and groundless; for those that do so there, suffer by it, as we do here: And those that Debauch in it, turn *Stupid, Feeble,* and *Paralitick* by it, especially when they join *Opium* with it, as they frequently do, as those who wallow in these, do here, and are as much despis'd and expos'd by serious Persons, as our *Topers* and *Brandy-swillers* are here. A Dish or two of *Coffee*, with a little *Milk* to soften it, in raw or damp Weather, or on a *Waterish* and *Flegmatick* Stomach, is not only innocent, but a present *Relief*. But 'tis as ridiculous, and perhaps more hurtful, at least in thin and *dry* Habits, to dabble in it two or three

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three Times every Day, as it would be for such to drink nothing but scalding *Lime-Water*. There are two Kinds of *Tea* in Use, *Green* and *Bohea*. Mr. *Cunningham*, who liv'd several Years in *China*, a very *learned* and *accurate* Person * informs us, that they are both gathered from the same Shrub, but at different Seasons of the Year; and that the *Bohea* is gather'd in the Spring, and is dried in the *Sun*, the *Green* at the *Fire*. But I suspect, and not without Authority, that, besides these Differences in drying, some *Infusion* of another Plant or Earth (perhaps such a one as that of *Japan Earth*, or *Catechu*) must be poured on some sorts of *Bohea Tea*, to give it the *Softness*, *Flavour*, and *Heaviness* on the Stomach it has, whereby it becomes a meer *Drug*, and wants the natural *Simplicity* of *Green Tea*, which when light, and drank neither too strong nor too Hot, I take to be a very proper *Diluent*, when softn'd with a little Milk, to cleanse the *alimentary* Passages, and wash off the *Scorbutick* and *Urinous Salts*, for a Breakfast, to those who live full and free; as also it, or *Tea* made of a slic'd *Orange* or *Lemon*, is one of the best promoters of *Digestion* after

* Vide Phil. Collect.

after a full Meal, or when one is adry between Meals, and much more safe and effectual than *Drams* or strong *Cordials*, which are commonly used for that Purpose. Some Persons of weak tender *Nerves*, fall into *Lowness* and *Trembling* upon using either of these Liquors with any Freedom, from their too great *Quantity*, or their *Irritation* on the tender and delicate *Fibres* of the Stomach. Such ought carefully to avoid and abstain from them, as from *Drams* and *Drops*. But I can never be of their Opinion who ascribe the Frequency of *Scurvy*, *Vapours*, *Lowspiritedness*, and *nervous* Distempers now, to what they were in the Days of our *Forefathers*, to the Custom of Drinking more frequently and freely of these *foreign Infusions*. The Cause is not *adequate* to the Effect; nor indeed has any *Analogy* to, or *Connexion* with it. We know that warm Water, will most of any Thing promote and assist *Digestion* in weak Stomachs and tender *Nerves*. And by this alone I have seen several such Persons recover to a Miracle, when *cold Mineral Waters*, *Bitters*, *Cordials* and *Drams*, have done rather Hurt than Good. And *Tea* is but an *Infusion* in Water of an *innocent* Plant: *Innocent*, I say, because we find by

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by its Taste it has neither *poisonous*, *deleterious* nor *acrimonious* Qualities; and we are certain from its Use in the Countries it comes from, (which are larger than most of *Europe*) that they receive no Damage from it, but on the contrary, that it promotes both *Digestion* and *Perspiration*. The Argument from its *relaxing* the Coats of the Stomach and Bowels by its *Heat*, is of no force. For unless it be drunk much hotter than the Blood itself, it can do no hurt that way: And we see the *Bath* Guides, who dabble in Water almost as *hot* as *Tea* is ever drunk, a great Part of the Day, and for one half of the Year at least, are no ways injured by it; except when they drink *strong Liquors*, too freely to quench the Thirst it raises. However, I should advise those who drink *Tea* plentifully, not to drink it much *hotter* than *blood-warm*; whereby they will receive all its *Benefit*, and be secure against all the Harm it can possibly do. As to *Chocolate*, I am of opinion, it is too hot and heavy, for *valetudinary* Persons; and those of weak *Nerves*. I have before observed, that *Nuts* pass through the *alimentary* Passages untouched; and tho' they may part with some of their more *volatile* Particles, yet, I doubt if they can afford much

much nourishment to Persons of *weak Digestions*. Some say, *Chocolate* gives them an Appetite; the meaning of which may be, that when they have a good Appetite for their *Breakfast*; it is not unlikely it may continue all the Day: But I am of opinion, 'tis a *false* and *hysterical Appetite*, such as sharp Wines, and sharp Humours in the Stomach give. For *fat* and *oily* Things, such as all Nuts are, are hard to digest, and lie long in the Stomach, for reasons I have already explain'd: It may lubricate and sheath against the *Irritation* of *salt* and *sharp Humours* in the Bowels, and therefore may be good in the *Colicks* and *Gravel* of those of strong and stout Digestion; but can never be good Food for those of *weak Nerves* and *poor Constitutions*. Nothing is so light and easy to the Stomach, most certainly, as the *Farinaceous* or mealy *Vegetables*; such as *Pease, Beans, Millet, Oats, Barly, Rye, Wheat, Sago, Rice, Potatoes*, and the like; of some of which on *Milk* or *Water*, I should ever advise the *Valetudinary*, and those of *weak Nerves*, to make their two *lesser* or *secondary* Meals. *Tobacco* is another *foreign Weed*, much in use here in *Britain*, though not among the *best*, yet among the *middle* and *inferiour* Ranks of the People: For those of gross and

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Phlegmatick Constitutions, who abound in *serous* and watry Humours, who are subject to *Coughs*, *Catarrhs*, and *asthmatick* Indispositions; who labour under violent *Tooth-achs*, or are troubled with *Rheums* in their *Eyes*; who have cold and *waterish* Stomachs, and live fully and freely, both *Smoking* and *Chewing* is a very beneficial Evacuation, drawing off *superfluous* Humours, *Crudities*, and cold *Phlegm*, provided they carefully avoid swallowing the *Smoak*, or the *Juice*; and drink nothing, but rinse their Mouths with some watry Liquor after it, and spit it out. But to *thin*, *meagre*, and *hettick* Constitutions, it is highly pernicious, and destructive; heating their Blood, drying their Solids, and defrauding the Food of that *Saliva*, which is so absolutely necessary towards *Concoction*. *Snuffing* the Leaves, or the grosser *Cut* in a Morning, will readily promote a *Flux* of *Rheum* by the Glands of the Nose; and will be of good use, to clear the *Head* and the *Eyes*. But the ridiculous Custom, of perpetually sucking in *sophisticated* Powders, and other Foreign *Drugs* sold for *Snuff*, cannot but be prejudicial both to the *Eyes*, and even to the *Stomach*; at least, if we believe the Reports of those who say they have brought it up from thence.

§. 19. I have endeavour'd to assist the Reader, with some *Observations* and *Reflexions*, to enable him towards determining the *Quantity* and *Quality* of his *solid Food*, necessary either to prevent or cure *chronical* Distempers. It may not be amiss, here to make some Reflexions also on the fit Proportion of *Drink* proper for that purpose: As the *Food* is, so must *that* be, various and uncertain, with regard to the *Age*, *Size*, *Labour*, and *Constitution* of the Person, and the *Season* of the Year. I have offer'd to limit the *Quantity* of strong Liquors, fittest to preserve Health and lengthen out Life in general, to a *Pound* or *Pint*, and that of the *middling* Kind. But the *Sickly*, the *Aged*, and those who would cure a *chronical* Distemper, must even abate of *this* Quantity. The only remaining Question, is about the Quantity of *Water*, or watry Liquors, proper to be mix'd with this *strong* Liquor, or drunk by itself: For in this also, though in itself harmless and innocent, yet there is a *Choice* and Preference; because, too much Water will only serve to *distend* and *swell* up the Vessels, and wash off some of the finer and more nutritious parts of the *Chyle*; and too little, will not be sufficient to dilute the *solid Food*, or to make the Chyle *thin*

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and *fluid* enough, to circulate through the *fine* and *small* Vessels. I will suppose my *Patient* to deal in no other *Cookery*, but *Roasting* and *Boiling*; and that he eats only *fresh* Meat. *Boiling* animal Food, draws more of the *rank*, *strong*, Juices from it, and leaves it less *nutritive*, more *diluted*, *lighter*, and *easier* of Digestion. *Roasting* on the other hand, leaves it fuller of the *strong* nutritive Juices, *harder* to digest, and wanting more *Dilution*: Those therefore, who must have full grown and *adult* animal Food, ought to eat it boiled, and *well* boiled too; if their Digestion be but weak. They who can live on *young* animal Food, (which is best for weak Stomachs,) ought to eat it *roasted*, but must lessen the Quantity, in respect of the same Food *boiled*; but they must dilute it more: For as *roast* Meat has a better Flavour, and more Nourishment, so it lies less *flabby* on the Stomach, and does not so readily *slip* from, or disappoint the *Action* of *Grinding*, which has some share in *Digestions*, both *primary* and *subsequent*: But it will want more *Dilution*, with a watry *Menstruum*, to soften its more *rigid* and *crisp* Fibres. If therefore, the whole Weight of the solid Food, in twenty four Hours, be supposed a *Pound* and a *Half*, then

When *three Pounds* of Liquor, that is, one of strong Liquor, and two of some aqueous Fluid, will in a Medium, be sufficient to dilute it abundantly. For thus there will be two Particles of a Fluid, to one solid Particle; which abating the solid Parts thrown off by *Siege*, will suffice to make the *Chyle* abundantly thin, to circulate through all the *fine* Channels, whose *Diameters* are *larger* than *that* of the solid Particle, the principal End of its *Thinness* and *Fluidity*. More than this, would but *distend* the Vessels, and carry off the *finer* Parts of the *Chyle* by *Water* or *Perspiration*; for we constantly find *both these* encreased by an *overdose* of Fluids: And less would not sufficiently dilute their Food. I should advise those therefore, who have *weak* Stomachs, or *relaxed Nerves*, to mix their Wine with the above-named quantity of boiled Water, with a burnt Crust, at least *Blood warm*, and to drink it after their Meal is over, if they can do it with ease, rather than in the Time of Eating: For the more *spirituous* and most nourishing Parts of the Food, will readily run off, without much *Dilution*; and it will be the *grosser* and *harder* remaining Part, that will want it most. And if some time after their great Meal, they find their Stomach *loaded*, the Food rising, *hard Belching*,
Heart-

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Heart-burning, or much *Tawning*, to swallow down and dilute it with milk-warm, light *Green-Tea*, or warm Water, rather than to run to *Drams* and *Cordials*, the usual, but most pernicious *Antidote* in such Cases. And upon great and heavy *Oppression*, much trouble and great struggle in the Digestion, to have recourse to *Carduus* or *Camomile-Flower Tea*, to bring it up, rather than to trespass in these *poisonous* and *caustick* Liquors; which, though they may at present lessen the suffering, and hurry on the *first Concoction*; yet make them dearly pay for it, when the *unconcocted* load of *Crudities* comes to pass by *Siege* or *Perspiration*, either in *Colicks*, *Gripes*, *Vapours*, and *Oppression* of Spirits; or by a general *Disability* and *Rheumatick* Stitches and Pains.

§. 20. Upon the Head of *Cordials* mentioned in one of the foregoing *Articles*, I cannot forbear setting down one, whose Virtues and Efficacy I have long tried, and have never found it fail, when any thing would succeed: And I recommend it (to be kept by them) to all *those*, who are liable to *low Spirits*, *Faintings*, *Oppressions*, *Sickness* at the Stomach, *Head-achs*, and *Vapours*; and also to those who wanting to exert themselves in

In any business of consequence, need a *Flow of Spirits* for some short time, for that purpose; or indeed upon any sudden accident arising of its own accord, out of the Habit itself; I think it a kind of an *universal Remedy*, but never to be used, but upon such occasions; because, Use may weaken it, if not extinguish its Vertue. 'Tis thus,

Take of simple *Chamomile-Flower Water*, six Ounces; *Compound Gentian*, and *Wormwood Waters*, each an Ounce and a Half; *Compound Spirit of Lavender*, *sal Volatile*, *Tincture of Castor*, and *Gum Ammoniack* dissolved in some simple Water, each two Drams; *Tincture of Snake-weed*, and *Tincture of the Species Diambrae*, each a Dram; the *Chymical Oils of Lavender, Juniper, and Nutmeg*, each ten Drops, mixed with a Bit of the Yolk of an Egg, to make the whole uniform; *Assa-fetida* and *Camphire* in a Rag, each half a Dram: But these may be left out by those to whom they are disagreeable.

Two, three or four Spoonfuls of this is a present Help in such Cases. It will keep six Months good.

General

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General Rules for Health and Long Life, drawn from the Head of MEAT and DRINK.

1. **T**HE great *Rule* of Eating and Drinking for *Health*, is to adjust the *Quality* and *Quantity* of our Food to our *digestive* Powers. The *Quality* may be judged by the following *Rules*.

2. Those *Substances* that consist of the *grossest* Parts are hardest of *Digestion*; the constituent *Particles* coming into more *Contacts*, and consequently adhering more firmly.

3. These *Substances* whose Parts are brought together with the greatest *Force*, cohere proportionably closer, than those that come together with a smaller * *Momentum*.

4. *Salts* are very hard to be separated, because united by plain *Surfaces*, under which they are always comprehended. And in the last Stages of the *Circulation*, where it is slower, shoot readily into larger *Clusters*, and so are harder to be driven out of the *Habit*. From these we may easily infer, that (1.) Those *Vegetables* and *Animals* that come soonest to their full *Growth* are easier of *Digestion*, than those that are longer of attaining the

* i. e. *Force*.

the State of *Maturity*. (2.) Those that are the *smallest* of their Kind, than the *biggest*. (3.) Those of a *dry, fleshy, and fibrous Substance*, than the *oily, fat, and glutinous*. (4.) Those of a *white Substance*, than those of a more *flaming Colour*. (5.) Those of a *mild, soft, and sweet*, than those of a *strong, poignant, aromatical, or hot Taste*. (6.) *Land-Animals*, than *Sea-Animals*. (7.) Those *Animals* that live on *Vegetables*, or other *light Food*, than those that live on other *Animals*, or hard and *heavy Food*. (8.) The Nourishment Nature has appointed for young *Animals*, is lighter than the *Flesh* of these *Animals* themselves.

5. All *cramm'd Poultry* and *stall-fed Cattle*, and even *Vegetables* forced by hot Beds, tend more to *Putrefaction*, and consequently are more unfit for *human Food*, than those brought up in the natural Manner.

6. *Plain-dressed Food* is easier of Digestion, than what is *pickled, salted, baked, smoaked*, or any Way *high-seasoned*.

7. *Strong Men*, those of *large Stature*, and much *Labour*, and the Inhabitants of a *cold and clear Air*, require more *Food* than *Women, Children, the Weak, the Sedentary, and the Aged*, and those that live in a *warmer Climate, or grosser Air*.

L

8. Nothing

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8. Nothing conduces more to *Health* and *Long Life*, than *Abstinence* and *plain Food*, with due *Labour*.

9. Where *Exercise* is wanting (as in *studious* Persons) there is the greater Need of *Abstinence*; for these, 8 *Ounces* of *animal*, and 12 of *vegetable Food*, in 24 Hours, is sufficient.

10. Most *chronical* Diseases proceed from *Repletion*; as appears from their being cured by *Evacuation*.

11. *Tender* Persons ought to use as much *Abstinence*, as they possibly can: And, if they neglect it, their only Relief is from frequent *stomachick* and *Family-Purges*.

12. A *plain* Rule for judging of the *Quantity* is, not to eat so much as indisposes for *Business*.

13. A more *sensible* and *readier* one is, first by *Experience* to find out how much fits one, so as to be *lightsome* and *healthy* under it, and ever after to judge the *Quantity* by the *Eye*; *Nature* requiring therein no *mathematical* Exactness.

14. *Pork* and *Fish* are not fit Food for the *Studious* and the *Tender*.

15. *Water* is the most natural and wholesome of all *Drinks*, quickens the Appetite, and strengthens the *Digestion* most.

16. *Strong*

16. *Strong and spirituous* Liquors freely indulged, become a certain tho' a slow *Poison*.

17. There is no Danger in leaving them off all at *once*; the *Plea* for continuing them being false and groundless.

18. The best *strong Liquor* for *weak and studious* People is *Wine*; the best *Quantity*, a Pint in 24 Hours; and the best Way of drinking it is, three Glasses *with*, and three *without Water*.

19. The *middling, light* Wines, *fully ripe*, and of a *due Age*, are preferable to the *strong Wines*.

20. Strong Liquors do not prevent the Mischiefs of a *Surfeit*, nor carry it off, so safely as *Water*, tho' they seem to give present *Relief*.

21. The frequent *Use* of *Spirits* in *Drams and Cordials*, is so far from curing *Low-spiritedness*, that it increases it, and brings on more *fatal* Disorders.

22. And even when they are diluted with *Water*, in *PUNCH*, the *Quantity* taken down at once, and the Addition of a corroding *Acid*, produce equally *pernicious* Effects in human Constitutions.

23. *Malt Liquors* (excepting clear small Beer, of a *due Age*) are extremely hurtful to *tender and studious* Persons.

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24. *Coffee* is only an *Infusion* of a kind of *Calx*, and has the Effects of an *absorbent* Medicine; and so may be of some Service to *watry Stomachs*, if *moderately* used.

25. *Green Tea* is a good *Diluter* of the Food, as it is an agreeable, *warm*, *small* Liquor: But *Bohea* is too *heavy* for the *Stomach*.

26. *Chocolate* (as all Nuts else) is so *heavy* and *hard* of *Digestion*, that it can *never be fit* for the *Stomachs* of *weak* and *tender* People.

27. *Smoaking Tobacco*, without *drinking* after it, *Chewing* and *Snuffing* the gross cut *Leaf* in a Morning, are useful to *flegmatick* Constitutions; but to *dry* and *lean* Habits they are *pernicious*. *Snuff* is just *good for nothing* at all.

28. The proper *Quantity* of *watry Liquors* in 24 Hours, to those that live regularly, is *two Pints*, (as that of *strong* Liquor is *one* Pint) which is best drank *warm*, and rather *after* than in the Time of *Eating*.

29. The Form of a *Cordial* fit to be kept in private Families, as a present and certain Relief, for sudden *Qualms*, *Faintness*, *Sickness*, or *low Spirits*; but never to be taken but in Case of Necessity.



CHAP. III.

Of SLEEPING and WATCHING.

§. I. **T**HE next general *Head* in order, is our *Sleeping* and *Watching*. All Bodies by their Actions upon one another, and by the Action of the circumambient Bodies, are liable to be impaired and wasted: And all *animal* Bodies, from an *active* and self-moving *Principle* within them, as well as from the *Rubs* of Bodies without them, are constantly throwing off some of their superfluous and decayed Parts; so that animal Bodies, are in a perpetual *Flux*. To restore this *Decay* and *Wasting* of *animal* Bodies, *Nature* has wisely made alternate *Periods* of *Labour* and *Rest*, *Sleeping*, and *Watching*, *necessary* to our Being; the one for the *active* Employments of Life, to provide for and take in the *Materials* of our *Nourishment*; the other, to apply those *Materials* to the proper wasted Part, and to supply the

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the *Expences* of Living, And it seems as improper in the *Order of Nature*, to disturb the *animal Functions* in the time of *Sleep*, by any other Employment, than that of the *secondary Concoctions* (as they are called;) *i. e.* the applying the Nourishment to the decayed Parts, to recruit the Blood, perfect the *Secretions*, and to lay up plenty of *Spirits*, or (to speak more *Philosophically*,) to restore the weakened *Tone* of *nervous Fibres*; that is, in short, to restore the *Decays* of *Watching* and *Action*: This I say, is as improper, as it would be (were it possible,) to *eat* or *drink*, or make provision for the Necessities of Life, in the time of *Sleeping*. From hence is evident, the *Absurdity* of *heavy*, *various*, and *luxurious* Suppers, or of going to Rest till many Hours after such a Meal; which must otherwise break in upon the *Order of Nature* and the due and appointed Times of *Sleeping* and *Watching*. Wherefore, I advise the *Valetudinary*, the *Studious*, and the *Contemplative*, either to make no Suppers, or only of *vegetable Food*; and to take a due Time for *Watching* after them.

§. 2. There is nothing more certain, than that (abstracting from *acute Cases*)

our *Sleep* is *sound, sweet, and refreshing*, according as the alimentary *Organs*, are easy, quiet and clean. If any one not suffering under any Disease, is disturbed in his *Sleep*, 'tis certain his *Stomach* is filled with *Food*, or *Crudities*; or his *Guts* filled with *Wind*, *Choler*, or *superfluous Chyle*: And those restless Nights, and the Difficulty of going to *Sleep*, which are generally ascribed to *Vapours*, are entirely owing to these Causes; though they be not so *strong*, as to become sensible; for then *Pain* is added to *Watching*, and they are felt. And upon complaints of such restless Nights, I never once failed, upon enquiry of finding the true Cause in the *Diet*, of the preceding Day, or of some few Days before; and constantly have discovered that some Error in *Eating* and *Drinking*, either in *Quantity* or *Quality* has produced them. I have been astonished to see *hypochondriacal* and *hysterical* People, restless all Night, tossing and tumbling till towards Morning, then *dropping* asleep till late Hours, awake *heavy, oppressed, and unrefreshed*. complain of being *bag-ridden, tired and wearied*, as if they had been *whip'd, spur'd, lashed, and beaten thro'* all the *Watches* of the Night; rise with *foul Mouths*, and white Tongue, Belchings, Yawnings,

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Yawnings, Coughing, Spitting, or Reaching and Heaving, without *Appetite*, *Spirits* or *Life*, all the Day-time; begin to live and breath, become *cheerful* and hungry, about ten, eleven, or twelve a clock at Night; eat a *hearty*, *various*, and *luxurious* Supper; drink a *cheeruping* Cup of the best, become as merry as *Crickets*, and long to sit up later; at last, tumble to Bed, and repeat the same *Farce* over again. The Reason of all this Complaint, is the Load on the Stomach, that will not suffer them to rest, till 'tis got off. The sharp and crude Humours, *twitching* and *twinging* the *nervous Fibres*, and Coats of the *Bowels*, become like so many *Needles* and *Pins*, constantly running through them; though not always with sensible pain: The *uncocted* Chyle stopping or circulating *slowly*, *first* in the *Bowels*, *then* in the smallest *Vessels*, begets these *Convulsions*, *Flatus*, *Night-Mares*, and *Oppressions* of *Spirits*. So that the secondary Digestions are not over till next Evening, (hence their want of *Appetite* :) And when these are finished their *Stomachs* come, and their *Spirits* flow; and thus the perpetual *Round* is carried on. Did they but follow the *Dictates* of *Nature*, go to Bed for some days with a *light Vegetable*,

or

or no *Supper* at all, and bear the Inconveniences thence arising; their *Appetites* would come in due season, and they would quickly find the Truth of the Aphorism of the *Schola Salernitana*.

* *Somnus ut sit levis, sit tibi Cæne brevis.*

§. 3. The Seasons for *Sleeping* and *Watching*, which Nature seems to point out to us, at least in these our *Climates* near the *Tropick*, are the *Vicissitudes* of *Day* and *Night*. Those *Damps*, *Vapours*, and *Exhalations*, that are drawn up into the *higher Regions*, and are so rarified by the Heat and Action of the *Sun*, as to become *innocent* or very weak in the Day-time; are *condensed*, *sink* low, near the *Surface* of the Earth, and are perpetually drooping down in the Night Season; and consequently must be *injurious* to those *tender* Persons, that *unnaturally* watch in that Season; and must necessarily obstruct the *Perspiration*, which the *Activity of Watching*, and the *Motion of Labour* promotes. I have already shewn, that our Bodies *suck* and

M draw

* i. e. That your Sleep may be sweet, let your Supper be light.

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draw into them, the good or bad qualities of the *circumambient Air*, through the Mouths of all the *perspiratory Ducts* of the Skin. And if we were to view an *animal* Body with a proper Glass, it would appear with an *Atmosphere* quite round it, like the *Steam* of a boiling Pot. Now we may easily conceive, what injury a *Constitution* may receive, not only by stopping such a perpetual *Discharge* of *Superfluities*, but also by forcing into the *Habit*, by the *Air's Weight* and *Pressure*, those *noxious Fumes* and *Vapours*, that are perpetually falling near the *Surface* of the Earth, in the Night-time. Your true *Topers* are so sensible of this, that by Observation they have gathered it to be more safe for their *Health*, and better for prolonging their *Lives*, to get *drunk* betimes and go to Bed, than to sit up and be *sober*.

§. 4. On the contrary, the *Heat* of the *Sun* in the Day-time, by its *Action* on human Bodies, the very *Light*, and free *Air*, and the *Motions* of things about us, disturbing the Quiet of the Air, must necessarily disorder the *equable Course* of the *Perspiration*, the *Tenour* of the *secondary Concoctions*, and the *Tranquillity* of the *Spirits* so necessary to *Rest* and *Quiet*.

Quiet. So that nothing seems more directly pointed out to us by *Nature*, than the *Day* for *Labour*, and the *Night* for *Rest*: And this without taking in the Consideration of the Necessity of the *Sun's* Light for the ends of *Labour*, and providing the Necessaries of Life. Some *Animals* that are exceeding tender, are directed by *Nature* to alternate *Periods* of *Watching* and *Rest*, not twice in 24 Hours, but twice in the Year, viz. *Summer* and *Winter*; such as *Swallows*, *Bats*, and many sorts of *Insects*, who sleep all the *Winter*, and watch all the *Summer*. So consistent is *Nature*, in appointing the *brightest* and most *enlightened* Parts of our Lives for *Action*, and the *darkest* and most *inclement* for *Rest*. Not but that *robust Constitutions* (as well as *Animals* fitted by *Nature* for different ways of living) may by Custom, get the better of these *natural Appointments*: But I write for the *Valetudinary*, the *Studious*, and the *Contemplative*.

§. 5. I advise all such, if they would preserve their *Health* and *lengthen* out their Days, to avoid as much as is possible *evening Dews*, *nocturnal Studies*, and *unseasonable Watching*; in *Summer* to go to Bed with the *Sun*, and in *Winter* to

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rise at least by *Break of Day*. Those who live *temperately*, will necessarily *Sleep but little*: But to recompence that, their *Sleep* will be much more *sound, refreshing*, and fruitful of *Chearfulness* and *free Spirits*, than that of those who live more *freely*. For as I have before said, the *Quantity* of *Sleep* will always be in proportion to the *Quantity* of *Eating* and *Drinking*. *Valetudinary, Studious, and Contemplative* People, ought to go to Bed by *eight, nine, or ten* at farthest, and rise by *four, five, or six*, by which they will have *eight Hours* a Bed; and that is sufficient for any Person, not under an *acute*, or the sharp Fits of a *Chronical* Distemper.

§. 6. Nothing can be more prejudicial to *tender* Constitutions, *studious* and *contemplative* Persons, then lying long a Bed of *lolling* and *soaking* in *Sheets*, any time after one is distinctly awake, or has slept a due and reasonable Time: It necessarily *thickens* the Juices, *enervates* the Solids, and *weakens* the Constitution. A free open *Air* is a kind of a *cold Bath*, especially after rising out of a warm Bed; and consequently makes the *Circulation* brisker and more compleat, and *braces* up the Solids, which lying a Bed *dissolves* and
soaks

soaks in *Moisture*. The *erect Posture*, and the *Activity* of *Watching*, make the *Perspiration* more plentiful, and the gross *Evacuations* more readily thrown off. This is evident from the *Appetite* and *Hunger*, those that rise *early* feel, beyond that which they get by lying *long* a Bed. Add to all these the Influence of the *fresh, benign, Morning Air*, the retreating of all the *noxious Damps* and *Vapours* of the Night, together with the Clouds and Heaviness, that are thrown upon the *Brain* from Sleep; and lastly, that *Cheerfulness* and *Alacrity* that is felt by the Approach or Presence, of that *glorious Luminary* the *Sun*, which adds a new Force to the *Heart*, and a *Spur* to the *Spirits*.

§. 7. All *Nations* and *Ages* have agreed that the *morning Season* is the proper Time for *speculative* Studies, and those Employments that most require the *Faculties* of the *Mind*. For then the *Stock* of the *Spirits* is undiminished, and in its greatest Plenty, the *Head* is clear and serene, the *Passions* are quieted and forgot; the *Anxiety* and Inquietude that the *Digestions* beget in the *nervous System*, in most tender Constitutions and the *Hurry* the *Spirits* are under after the great Meal,

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Meal, are settled and *wrought off*. I should advise therefore those who are of a weak relaxed State of *Nerves*, who are subject to *hypochondriacal* or *hysterical* Disorders, whose Professions lead them to much Use of their *intellectual Faculties*, or who would indulge *speculative* Studies, to go early to Bed, and to rise betimes; to employ their morning Hours in these *Exercises*, till eleven a Clock, then to take some agreeable *Breakfast* of *vegetable* Food; to go on with their *Studies* and *Professions* till *three, four, or five*, as their Spirits will hold out, and then to take their *great Meal* of *animal* Food; all the rest of the Day to throw off all *Study* and *Thought*, divert themselves agreeably in some innocent *Amusement*, with some gentle bodily *Exercise*; and as soon as the *Digestion* is over, to retire and provide for going to Bed, without any farther supplies, except it be a Glass of fair Water, or warm Sack-Whey. But the *Aged* and *Sickly* must go sooner to Bed and lye longer, because *Age* and *Sickness* break rest, and the stiffen'd and hardened Limbs of the Antient become more *pliant* and *relaxed* by much Sleep, a *supine* Posture, and the *Warmth* of the Bed.

*Rules for Health and Long Life
drawn from the Head of SLEEP
and WATCHING.*

1. **T**HE *Valetudinary*, the *Sedentary*, and the *Studios* should eat very light, or no *Supper*; if any, it ought to be *vegetable* Food; neither ought they to go soon to *Bed*, after any *Supper* whatsoever.

2. Going to *Bed* on a *full Stomach*, and *Wind* and *Crudities* somewhere in the *alimentary* Passages, is the Cause of the want of due *Rest*, which is *sound* and *refreshing*, always in *Proportion* to the *Emptiness* and *Cleanness* of these *Passages*, and their *Vacation* from their proper Office of *Digestion*: And this is the Cause of the Want of *kindly and refreshing Rest*, in *hypochondriacal* and *hysterical* People.

3. *Watching* by Night and *Sleeping* by Day, is of the most pernicious Consequence to *Health* and *Long Life*; and plainly contrary to the Indications of *Nature* and the *Constitutions* of our Bodies.

4. The *Valetudinary*, *Sedentary*, and *Studios*, ought carefully to avoid evening *Dews*, nocturnal *Studies*, and unseasonable *Watching*; go to *Bed* by *eight*,
nine,

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nine, or ten, and rise proportionably by four, five, or six; unless actually under a Fit of Sicknefs.

5. Nothing is more prejudicial to *tender* Constitutions, than lying *long* a Bed, indulging a *lethargical* and drowfy Sleep, or *lolling* or *loitering* awake; as appears by their *Heavinefs*, and want of *Appetite*, upon doing fo; and their good *Stomachs*, *Chearfullnefs*, and *Freedom* of *Spirits*, when they rise *early*.

6. The moft advantagious manner for the *Tender*, *Sedentary*, and *Studious*, to beftow their Time, on account both of their *Health* and *Studies*, is to go *early* to Bed, rise *betimes*, go about their Studies till *eleven*, taking a light *vegetable* Breakfast; profecute them till about *four* in the Afternoon, then to take their great Meal of *animal* Food, and after that to employ the reft of their Time in fome *innocent Amusement*, or gentle bodily *Exercise*, to retire *betimes*, to prepare for going to Bed, taking no farther Nourishment, except a Draught of Water or warm *Sack-Whey*, which will be particularly ufeul to thofe who labour under *Stone* and *Gravel*.

C H A P.



CHAP. IV.

Of EXERCISE and QUIET.

§. I. **WE** proceed, in the next Place, to the Consideration of *Exercise* and *Quiet*, the due *Regulation* of which, is almost as necessary to *Health* and *Long Life*, as *Food* itself. Whether we were so made before the *Fall*, as to live in *intire* Health, in a rigidly *sedentary* and *contemplative* Life, is a *Speculation* of no great *Consequence*, nor easily determined in our present *Situation*; for there is no certain *Analogy* between Things as they now are, and as they might have been then. As there happen'd an *intire Revolution* in the *Complexion* and *Qualities* of the *Minds* of the *First Pair*; so, to me, there appear, to be evident *Indications* of a a designed *Change* and *Alteration* of the *material World*, and the *Nature* of the *Animals* and *Vegetables* which subsist on this *Globe*, from what they were when **GOD** pronounced

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every Thing *Good* that he had made. Nor seem the *Cælestial* Bodies to have escaped, so far as they regard us. Whatever be in this, the Passage where God tells *Adam*, * *That in the Sweat of his Brow he shall eat Bread*, seems to be the Injunction of a *salutary* Penance; that is, Not merely a *Punishment*, but also a *Remedy* against the Disorders his Body would be liable to in this *new* State of the Creation, and against the poisonous Effects of the *Forbidden Tree* he had eaten the Fruit of. I am the more confirmed in this Belief, that I observe, the *absolute* Necessity of *Labour* and *Exercise*, to preserve the Body any Time in due plight, to maintain *Health*, and lengthen out *Life*. For, let whatsoever *Diet* be pursued, however adjusted, both in *Quantity* and *Quality*; let whatever *Evacuations* be used to lessen the *Malady*, or any † *Succedaneum* be proposed, to prevent the ill Effects; our Bodies are so made, and the *Animal Oeconomy* now so contrived, that without due *Labour* and *Exercise*, the *Juices* will thicken, the

* *Gen.* chap. iii. v. 19.

† *i. e.* Equivalent.

Joints will stiffen, the *Nerves* will relax, and on these Disorders, *Chronical Distempers*, and a crazy old *Age* must ensue. Nor is this necessary only in the *colder* *Climates*, and where the Food is *gross*, but even in the *warmest* *Climates*, and where the Food is *lightest*. For though the *Warmth* of the Air may keep the *Perspiration* free and open, or rather, where it is very great, promote *Sweating*; yet, at the same Time, and by *Consequence*, it will *thicken* the Fluids, and *relax* the Fibres; to prevent both which, *Exercise* is absolutely necessary: but in such a Climate it ought to be gone about in the Cool of the Day. And tho' *light Food* may, in a great measure, prevent the *Thickening* of the Fluids, yet it cannot do it sufficiently without *Exercise*; nor can it at all keep the Fibres in due *Tension*; for to that Purpose *Exercise* is absolutely necessary. Nay, the *joint Power* of *warm Air*, and *light Food*, cannot supply the Place of *Exercise* in keeping the *Joints* pliant and moveable, and preserving them from growing *resty* and *stiff*.

§. 2. I have sometimes also, indulg'd a Conjecture, that *Animal Food*, and *Made* or *Artificial* *Liquors*, in the *Original*

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Frame

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Frame of our Nature, and Design of our *Creation*, were not intended for *Human Creatures*. They seem to me, neither to have these strong and fit *Organs* for digesting them (at least such as *Birds* and *Beasts* of *Prey* have, who live on *Flesh*;) nor, naturally, to have those *voracious* and *brutish* Appetites, that require *Animal Food*, and strong *Liquors*, to satisfy them; nor those *cruel* and *hard* Hearts, or those *diabolical* Passions, which could easily suffer them to tear and destroy their *Fellow Creatures*; at least, not in the *first* and *early* Ages, before every *Man* had corrupted his *Way*, and God was forced to exterminate the whole Race, by an universal Deluge, and was also obliged (that the *Globe* of the *Earth* might not, from the long Lives of its Inhabitants, become a *Hell*, and a *Habitation* for incarnate *Devils*) to shorten their Lives from 900 or 1000 Years, to 70. He wisely foresaw, that *Animal Food*, and *Artificial Liquors*, would naturally contribute towards this *End*; and indulg'd, or permitted, the *Generation* that was to plant the *Earth* again after the *Flood*, the Use of these for *Food*, knowing that though it would shorten the *Lives*, and plate a *Scourge* of *Thorns* for the Backs of

and LONG LIFE. 93

of the *Lazy* and *Voluptuous*, it would be cautiously avoided by those who knew it was their *Duty* and *Happiness* to keep their *Passions low*, and their *Appetites* in Subjection. And this very *Æra* of the *Flood*, is that mentioned in *Holy Writ*, for the Indulgence of *Animal Food* and *Artificial Liquors*, after the *Trial* had been made, how insufficient alone, a *Vegetable Diet* (which was the first Food appointed for *Human-kind*, immediately after their *Creation*) was, in the long *Lives* of *Men*, to restrain their *Wickedness* and *Malice*; and after finding, that nothing but *shortning* their *Duration* could possibly prevent the *Evil*. 'Tis true, there is scarce a Possibility of preventing the destroying of *Animal Life*, as Things are now constituted, since *Insects* breed and nestle in the very *Vegetables* themselves, and we scarce ever devour a *Plant* or *Root*, wherein we do not destroy innumerable *Animalcules*. But besides what I have said, of *Nature's* being quite altered and changed from what was *originally* intended, there is a great *Difference* between *destroying* and *extinguishing* an *Animal Life* (which otherwise might subsist many Years) by *Choice* and *Election*, to gratify our *Ap-
petites*,

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petites, and indulge *Concupiscence*; and the *Casual* and *Unavoidable* crushing of those, who perhaps, otherwise, would die within the *Day*, or at most, the *Year*, and obtain but an inferior kind of *Existence* and *Life* at best. Whatever be in this *Conjecture*, 'tis evident to those who understand the *Animal Oeconomy*, and the *Frame* of *Humane Bodies*, together with the *History*, both of those who have lived *Abstemiously*, and of those who have lived *Freely*, that *indulging* in flesh *Meats*, and strong *Liquors*, *inflames* the *Passions*, and *shortens* *Life*, begets *Chronical* *Distempers*, and a *Decrepit* *Age*, as the *History* of the *Life* of *Cornaro* manifests to a *Demonstration*.

§. 3. Of all the *Exercises* that are, or may be used for *Health* (such as *Walking*, *Riding* a *Horse-back*, or in a *Coach*, *Fencing*, *Dancing*, playing at *Billiards*, *Bowls*, or *Tennis*, *Digging*, *Working* at a *Pump*, *Ring*ing a *Dumb Bell*, &c.) *Walking* is the most *natural*, as it would be also the most *useful*, if it did not spend too much of the *Spirits* of the *Weakly*. *Riding* is certainly the most *Manly*, the most *Healthy*, and the least *Laborious*, and *Expensive* of *Spirits*, of any;

any; shaking the whole *Machine*, promoting an universal *Perspiration* and *Secretion* of all the *Fluids* (to which may be added, The various *Changes* of the *Air*, thro' which they so quickly pass, every *Alteration* of which, becomes, as it were, a new *Bath*) and thereby, variously *twitching* the *Nervous Fibres*, to brace and contract them, as the *new Scenes* amuse the *Mind*. Those who cannot *ride*, must be carried in a *Coach* or *Litter*, which is the best *Exercise* for the *Lame* and *Crazy*, and the only one proper for *Old* and *Decrepit* Persons, as well as those that are so *Young*, that they are not able to manage their own *Exercise*. The *Home Exercises*, such as *playing* at *Tennis* and *Billiards*, *Dancing*, *Fencing*, and the like, ought to be followed only when the *Season* forbids being *Abroad*; for being in the *Air*, contributes much towards the *Benefit* of *Exercise*. 'Tis beautiful to observe that earnest *Desire*, planted by *Nature*, in *Young* Persons, to *romp*, *jump*, *wrestle*, and *run*, and constantly to be pursuing *Exercises* and *Bodily Diversions*, that require *Labour*, even till they are ready to drop down; especially the healthier Sort of them: So that
sitting,

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sitting, or being *confined*, seems to be the greatest *Punishment* they can suffer, and *imprisoning* them for some Time, will much more readily correct them than *Whipping*. This is a wise Contrivance of Nature; for thereby, their *Joints* are render'd *pliable* and *strong*; their *Blood* continues sweet, and proper for a full *Circulation*; their *Perspiration* is free, and their *Organs* stretched out, by due Degrees, to their proper *Extension*.

§. 4. It is also very agreeable to observe, how the several different *Organs* of *Labouring Men* are strengthen'd, and render'd *Brawny* and *Nervous*, as they happen to be most employ'd in their several *Vocations*, let them be otherwise ever so *small* or *weakly*. The *Legs*, *Thighs*, and *Feet* of *Chairmen*; the *Arms* and *Hands* of *Watermen*; the *Backs* and *Shoulders* of *Porters*, grow *thick*, *strong*, and *brawny* by Time. 'Tis certain, that speaking *strong* and *loud*, without *overstraining*, will *strengthen* the *Voice*, and give Force to the *Lungs*. Our *Nails* and *Hair*, the more they are *cut* and *shaved*, the more they grow. And we may promote any one *Evacuation* so far, as to weaken and starve all the rest. Using
any

any *Organ* frequently and forcibly, brings *Blood* and *Spirits* into it, and so makes it grow *Plump* and *Brawny*. And if due Pains were taken by the *Labour* proper to them, the *Organs* of all the *Functions* of the *Animal Oeconomy* might be strengthen'd and kept in due plight.

§. 5. Therefore, to the *Asthmatick*, and those of weak *Lungs*, I should recommend *Talking much* and *loud*, even by themselves, walking up an easy *Ascent*, and when any degree of *Weariness* warns them, to sit and rest, 'till they are easy, and then to return to their *walking* again, and so to increase it every Day, 'till they are able to walk a *reasonable* Distance, in a *reasonable* Time. To those who have weak *Nerves* and *Digestion*, and to those who are much troubled with *Head-aches* (most of all which arise from the ill State of the *Stomach* and *Bowels*) I should recommend riding on *Horseback* as much as possibly they could, in the clearest and driest *Air*, and to change the *Air* daily, if possible. To those who are troubled with the *Stone* or *Gravel*, to ride much over rough *Causeways* in a *Coach*. To those that have *Rheumatick* Pains, to play at *Billiards*, *Tennis* or *Cricket*,
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till they *sweat* plentifully, and then go immediately into a warm Bed, and drink liberally of some warm thin Liquor with Ten Drops of Spirit of *Sal Armoniac* or *Harts-horn* in each Draught, to encourage the *Sweating*. To those who have weak *Arms* or *Hams*, playing two or three Hours at *Tennis*, or at *Foot-ball*, every Day. To those who have weak *Backs* or *Breasts*, ringing a *Bell*, or working at a *Pump*. Walking thro' rough Roads, even to *Lassitude*, will soonest recover the Use of their *Limbs* to the *Gouty*; tho' *Riding* on Horseback or in a Coach will best prevent the *Distemper*. But the *Studious* and the *Contemplative*, the *Valetudinary*, and those of weak *Nerves*, if they aim at *Health* and *Long Life*, must make *Exercise* a Part of their *Religion*, as it is among some of the *Eastern Nations*, with whom *Pilgrimages*, at stated Times, are an indispensable Duty, and where *Mechanical Trades* are learned and practised by Men of all Ranks. Those who have their Time in their own Hands, ought to have stated *Seasons* for *Riding* or *Walking* in a good *Air*, as indispensable, as those for going to *Dinner*, to *Bed*, or to *Church*. Three Hours for *Riding*; or Two for

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for *Walking*, the one half before the great *Meal*, and the other before going to *Bed*, is the least that can be dispensed with : As the first Part begets an *Appetite*, the second helps on the *Digestion*. Those who are not Masters of their own Time, must take it when they can; but to be sure they ought to let no Opportunity of taking it slip.

§. 6. There are Three Conditions of *Exercise* to make it the most Beneficial that may be. *First*, That it be upon an *empty Stomach* (as, indeed, that is the proper Time for all *Medicinal Evacuations*) for thereby, the now *concocted* * *Crudities*, or those *Superfluities* Nature would be rid of, and has fitted, by going through the proper *Secretions*, for being *ejected*, but cannot throw off without foreign *Assistance*, will be readiest discharged. For, on a full *Stomach Exercise* would be too tumultuous, *precipitate* the *Secretions*, and throw off the sound Juices with the corrupted Humours. *Secondly*, That it be not continued to down-right *Lassitude*,

* *Cocta non cruda sunt evacuanda, Hippocrat.*

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Depression of Spirits, or a *melting Sweat*, The *First* will wear out the *Organs*, the *Second* spend the *Strength*, and the *Third* will only do *Violence* to the *Natural Functions*. *Thirdly*, Due Care is to be had after *Exercise*, to retreat to a *warm Room* and proper Shelter from the *Injuries* of the *Weather*, lest sucking into the wasted *Body*, the *nitrous Particles* of the *circumambient Air*, they should *inflame* the *Blood*, and produce a *Rheumatism*, *Fever* or *Cold*. I might add a *Fourth Condition*, Joining *Temperance* to *Exercise*, otherwise the *Evil* will be as *broad* one *Way*, as 'tis *long* the other. For since *Exercise* will create a greater *Appetite*, if it is indulg'd to the *full*, the *co-active Powers* will be as *unequal* to the *Load*, as they were before. But I pass that over, having sufficiently treated this Subject already.

§. 7. Under this Head of *Exercise*, I cannot forbear recommending *Cold-bathing*; and I cannot sufficiently admire, how it should ever have come into such *Disuse*, especially among *Christians*, when commanded by the greatest *Lawgiver* that ever was, under the *Direction* of *God's Holy Spirit*,

to

to his *Chosen* People, and perpetuated to us in the *Immersion* at *Baptism*, by the same *Spirit*, who, with *infinite* Wisdom in this, as in every Thing else that regards the *Temporal* and *Eternal* Felicity of his *Creatures*, combines their *Duty* with their *eternal* Happiness. *First*, The Necessity of a free *Perspiration* to the *Preservation* of *Health*, is now known to every Body, and frequent *washing* the Body in *Water*, cleanses the Mouths of the *Perspiratory Ducts* from that *Glutinous* Foulness that is continually falling upon them, from their own condensed *deasy Atmosphere*, whereby the *Perspiration* would be soon *obstructed*, and the *Party* languish. *Secondly*, The having the *Circulation*, full, free and open, thro' all the *Capillary Arteries*, is of great Benefit towards *Health* and *Long Life*. Now nothing promotes that so much as Cold-bathing; for by the violent and sudden Shock it gives to the whole *System* of the *Fluids*, from the *Circumference* inward towards the *Centre*, and the *Fluids* (because *Reaction* is always *equal* and *contrary* to *Action*) springing back again from the *Centre* to the *Circumference*, a *Force* is raised almost ever sufficient to break thro' all the *Dams* and *Obstructions* of the
smallest

smallest Vessels, where they mostly happen, and to carry the *Circulation* quite round. *Thirdly*, Nothing is so injurious, and so much prevents the Benefit of *Exercise* to weak and tender Constitutions, as sucking into their Bodies the *Nitrous* and *Humid Particles* of the *Air*, that is, *Catching of Cold*. Now nothing so effectually prevents this, as *Cold-bathing*; as the *Nature* of the Thing shews, and *Experience* confirms: For if *Exercise*, to attenuate the *Juices*, and strengthen the *Solids*, be added to *Cold-bathing*, a new *Spring* and *Force* will be given to the *Blood*, both to drive out these foreign and noxious *Mixtures*, and to unite the *Cuticular Scales*, which form the *Scarf-Skin*, so as to strengthen it for the future against such violent *Entries*.

§. 8. I should advise therefore, every one who can afford it, as regularly to have a *Cold Bath* at their House to wash their Bodies in, as a *Basin* to wash their Hands; and constantly, *two* or *three Times* a Week, *Summer* and *Winter*, to go into it. And those that cannot afford such *Conveniency*, as often as they can, to go into a *River* or *Living Pond*, to wash their Bodies. But this ought

ought never to be done under the actual
Fits of a *Chronical* Distemper, with a
quick Pulse, *Head-ach*, *weak Lungs*, or a
foul Stomach; nor ought they to stay in
till they are *over-chill'd*. And in *Winter*,
they ought to pursue their *Exercises* im-
mediately after they come out; and those
of tender *Nerves*, ought to pour *Basons* of
Cold Water on their Head, or wash it
well with a *dripping Sponge* before they
go in. I cannot approve the *precipitant*
Way of *jumping* in, or throwing the Head
foremost into a *Cold Bath*; it gives too
violent a Shock to Nature, and risques
too much the *Bursting* some of the smaller
Vessels. The Natural Way is, holding
by the Rope, to walk down the Steps as
fast as one can, and when got to the
Bottom, bending their *Hams* (as Women
do when they *Curt'sy* low) to *shorten*
their Length, so as to bring their Heads
a good Way under *Water*, and then
popping up again to take Breath; and
thus alternately for two or three Times,
and out again, *rubbing* and *currying* well
before they are dress'd. And this brings
me to say something of another kind of
Exercise.

§. 9. The *Flesh Brush* is an *Exercise* most useful for promoting a full and free *Perspiration* and *Circulation*; Almost every Body knows, what well *Currying* will do to *Horses*, in making them *sleek* and *gay*, *lively* and *active*; even so much, as to be worth half the *Feeding*. This it can no otherwise *effectuate*, than by assisting *Nature* to throw off by *Perspiration*, the * *Recrements* of the Juices which stop the full and free *Circulation*, and by constant *Friction*, *Irritation* and *Stimulation*, to *allicite* *Blood* and *Spirits*, to the Parts most distant from the Seat of *Heat* and *Motion*, and so to *plump* up the *superficial Muscles*. The same Effect it would produce in other *Animals*, even *Human* Creatures themselves, if they were managed in the same Manner, with the same Care and Regularity. I should think it therefore, well worth the Pains of Persons of weak *Nerves* and *Sedentary* Lives, especially those threatened with *Paralytick Disorders*, to supply the Want of *Exercise* of other Kinds, with spending

* i. e. The grosser Parts.

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half an *Hour*, Morning and Night, in *Currying* and *Rubbing* their whole Body, more-especially their *Limbs*, with a *Flesh Brush*. And 'tis a Wonder to me, that *Luxury* has not brought *Cold-bathing* and *Currying* in Use, upon the *Animals* (especially those of them upon whom they can be so readily made Use of, such as *Oxen*, *Pigs*, *Veal*, *Lamb*, and all *Poultry*, which naturally delight in *Cold-bathing*) which are brought to the *Table*. For certain it is, that *Cleanness* and due *Exercise* (of which *Currying* is one Part) would much contribute to make all *Animals* whatsoever, without Exception, healthier in themselves, fuller of *Juice* and *Spirits*, and, consequently, better Food for *Human* Creatures.

As to *Quiet*, the Conditions of *Exercise* being determined, there needs nothing to be said of it.



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RULES

RULES *for Health and Long Life, drawn from the Head*

Of EXERCISE and QUIET.

1. **W**HATEVER was the *Original* Constitution of *Man*, in our present State, a due Degree of *Exercise* is indispensably necessary towards *Health and Long Life*.

2. *Animal Food, and Strong Liquors*, seem not to have been designed for *Man* in his *Original Make and Frame*; but rather indulged, to shorten the *Antediluvian Length of Life*, in order to prevent the *excessive Growth of Wickedness*.

3. *Walking* is the most Natural and effectual *Exercise*, did it not spend the *Spirits* of the tender too much. *Riding a Horseback* is less laborious, and more effectual for such. *Riding in a Coach* is only for the *Infirm, and Young Children*. *House Exercises* are never

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to be allow'd, but when the *Weather*, or some Bodily *Infirmity* will not permit going abroad; for *Air* contributes mightily to the Benefit of *Exercise*. *Children* naturally love all kinds of *Exercise*, which wonderfully promotes their *Health*, increas'es their *Strength*, and stretches out their *Organs*.

4. The *Organs* of the Body that are most used, always become *strongest*, and therefore we may strengthen any weak *Organ* by *Exercise*.

5. The *Lungs* are fortified by loud Talking, and walking up an easy *Ascent*. The *Digestion* and the *Nerves* are strengthen'd, and most *Head-aches* cur'd, by *Riding*; the *Stone* and *Gravel* eased by riding in a *Coach* over rough Ground; *Rheumatick Pains* by playing at *Tennis*, *Billiards*, &c. 'till one sweat, and then going to a warm Bed, to promote the *Sweating*; Feeble *Arms* by playing at *Shittlecock*, or *Tennis*; Weak *Hams* by *Foot-ball*, and weak *Backs* by *Ringing*, or *Pumping*. The *Gouty* best recover the Use of their *Limbs* by Walking in rough Roads; but prevent the *Fits* best, by *Riding* a Horseback, or in a *Coach*. The

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Valetudinary, and the *Studious*, ought to have stated Times for *Exercise*, at least Two or Three Hours a Day, the one Half *before* Dinner, the other *before* going to Bed.

6. *Exercise*, 1. Should always be gone about with an *empty Stomach*: 2. Should never be continued to *Weariness*: 3. After it, one must take Care not to catch *Cold*. And it should always be accompanied with *Temperance*, else, instead of a *Remedy*, it will become an *Evil*.

7. *Cold-bathing* is of great Advantage to Health; but should not be used under a *Fit* of a *chronical* Distemper, with a quick Pulse, or with a *Head-ach*, or by those that have weak *Lungs*. It promotes Perspiration, enlarges the *Circulation*, and prevents the Danger of catching *Cold*. Those of tender *Nerves*, should pour Water on their *Heads* before they go in, and none ought to jump in suddenly, and with their *Heads* foremost.

8. The *Flesh-Brush* is a most useful *Exercise*, as appears by its Advantage to *Horses*, and ought not only to be used

used on Human Bodies, but also on such of the *Animals* we design for our Food, as it can be applied to.



CHAP. V.

Of our Evacuations, and their Obstructions.

§. I. **T**HE Three Principal *Evacuati-
ons* are, By *Siege*, by *Water*, and
by *Perspiration*. All these must be duly
regulated, and in the Order of *Nature*,
towards the Preservation of *Health*, and
the prolonging of *Life*. The *First* ought
to be of a due *Consistence* between both
Extremes. * *Oportet Sanorum Sedes esse
figuratas*. Those who are *costive*; have
either *over-heated* their Bodies with *strong
Liquors*; have eaten too sparingly; have
too slow a *Digestion*, or the *Peristaltick*

* *i. e.* The Gross Evacuations ought to be of
such a *Consistence* in the Healthy, as to take the
Impression of the Guts.

Motion

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Motion of their Guts are too weak, whereby the Food staying too long a Time before the Mouths of the *Lacteals*, is over-drained of its *Moisture*: Those who have *purging Stools*, have eat too much, or of Things too strong for their *concoctive Powers*. For *superfluous Nourishment* leaves too much *Chyle* in the † *Feces*, which fermenting in the Guts, stimulates them so as to become a *Purge*. I have often observed, That a full Meal of strong Meat, as *Fish, Beef, Pork, Baked Meat, or made Dishes*, in tender Persons, goes off with the *Hurry and Irritation* of a *Purge*, leaving the Bowels *inflated, colicked, or griped*, and the Spirits sunk to the last Degree. The Food, by its various *Mixture, Weight, and Fermentation*, stimulating all along from the *Stomach* to the *Rectum*, and being scarce ever drained of its *Chyle*, without affording any Nourishment to the Body, runs off thus crudely, and becomes equal to a total *Abstinence* from Food for a long Time. And hence we have a most infallible Rule, * *à posteriori*, to judge if we have

† *i. e.* The Food, after it is drain'd of its Nutritious Parts.

* *i. e.* After the Tryal has been made.

and LONG LIFE. III

governed ourselves in our *Diet* in Proportion to the Necessities of *Nature*, and the *Forces* of our *concoctive* Powers. This is the very Reason why the *Bark* over-dosed, and given to Persons of weak Digestion, so constantly *purges* them; and why *Mercury*, given either inwardly, or by *Friction*, runs off in violent *purging*, and cannot be raised into a *Salivation*; to wit, the not adjusting the *Doses* to the Strength of the *Stomach* and *nervous Fibres*. For the *Bark* naturally binds, and *Mercury* naturally rises to the most pervious *Glands*. And in this Sense, I myself have frequently observed in weak and *scrofulous* Bowels, even *Diascordium*, and *Venice Treacle* to purge: Whereas, had the *Doses* been duly proportioned, or had they begun by Underdosing, and taken a little longer Time, their End might have been effectually answered; as I have often experienced without ever failing.

§. 2. And here it may not be amiss to take Notice of a *fatal* Mistake those run into, who, being *weakly*, *thin*, and *slender*, aim, by all Means, and at any Price, to become *plump* and *round*, and in order to attain this, are perpetually devour-

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devouring huge Quantities of *high, strong* Food, and swallowing proportionable Measures of *generous* Liquors, not knowing, that by this very Method, they promote and confirm the *Disease* they would remedy; For in such Persons and Cases, the *globular* Part of the Blood is constantly of a *small* Quantity, and very *glemy*, and the *serous* Part, thin and watry (that is, The Blood is *poor* and *weak*) and the *Solids* or *Nerves* are *loose* and *relaxed*. And the concoctive Powers being in *Proportion* to these *Two*, of Consequence, the *Digestions* must be weak and imperfect, and their Force unable to dissolve and break any Quantity of such *strong* Meat or *spirituous* Liquors into a proper Chyle for Nourishment. And this great *Load* must either be hurried off intirely thro' the *alimentary Ducts* in supernumerary Discharges, or the small Portion of *Chyle* drawn out of it, being too gross to unite and make a *similar* Fluid with the Mass of the Blood, must be *precipitated* through the other *Drains* of the Body; and thus the poor thin Creature must starve in *Luxury*, and waste amidst *Superfluity*. The Case is the same with *Nurses* and *Parents* in rearing up *Young* Children. The perpetual

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tual Gripes, Colicks, Loosenesses, hard Bel-
lies, Choakings, Wind, and Convulsive Fits,
which torment half the Children of Eng-
land, are intirely owing to the too great
Quantities of too strong Food, and too
rank Milk, thrust down their Throats
by their over-laying Mothers and Nurses.
For what else do their *slimy*, their *gray* or
chylous, their *blackish* and *choleric* Dis-
charges, the *Noise* and *Motion* in their
Bowels, their *Wind* and *Choakings*, imply,
but *Crudities* from superfluous Nourish-
ment? This is so certain, that they are
universally, and infallibly cured by *testa-
ceous* Powders, which only *absorb* sharp
Crudities, by *Rhubarb* Purges, which at
once *evacuate* and *strengthen* the Bowels,
and by *Milk Clysters*, *Issues*, and *Blisters*,
which are still upon the Foot of Evacu-
ation: by *obstinately* persisting in these,
and the like (intended to *evacuate* and
strengthen the *alimentary* Passages) and a
thin, spare, and nutritive *Diet*. Nothing
nourishes but Food duly *concocted*; and,
in the Course of Nature, we must first
plump up and extend, and then *harden*
and strengthen. This is the Way of
Nature in *Vegetation*. And thus the
Animal Creation, devoid of Reason,
rear up their Young: And thus even

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the skilful *Groom* treats his wasted and decayed *Horse*: And (which is wonderful) you shall find a sagacious *Horse-Doctor* plump up and fatten a rotten, lean, broken-winded Jade, and make him look sleek, gay, and lively, so as to cheat not only the *Esquire*, but his *Brother-Doctor*, in fewer Weeks, than all the *Man-Doctors* in *England* could rear up their *Fellow Creature*, in Years. 'Tis true, the *Juices* of *Men* are more variously, and more thoroughly corrupted, and their *Solids* intirely broken, which never happens to the *Brute-Creation*. But the greatest Mistake lies in the Neglect of *duly* observing, and *religiously* prosecuting a proper Regimen. This must principally consist in a *Diet* of soft, light, tender, cool, and mucilaginous Foods, or such as are already become *Chyle*, either by *Nature* or *Art*, such are *Milk*, and *Milk-Meats*, *Rice*, *Sago*, *Barley*, *Wheat*, *Eggs*, *Broths*, *light Soops*, *Jellies*, *white*, *young*, *tender*, and *well-fed Poultry*, or *Butchery Meat*, eaten little at a Time, and often, never without an *Appetite*, nor to *Satiety*; joining to these, the other Helps and Assistances mentioned in this *Treatise*. When *Flesh* is once come, 'tis easy to make it strong and hardy, by due

due *Exercise*, and a gradual adventuring upon *higher* Foods and more *generous* Liquors.

§. 3. I have often heard *valetudinary* and *tender* Persons, and those of *sedentary* Lives and *learned* Professions, complain of *Head-aches*, *Sicknesses* at the Stomach, *Colicks* and *Gripes*, *Lowness* of *Spirits*, *Wind*, and *Vapours*, and yet pretend they were very moderate and *abstemious* in their Eating and Drinking; But, upon Enquiry, I constantly found these very Persons pursued with *purging* Stools, which was an evident *Proof*, to me, that they had taken down more than they wanted, or could digest. For 'tis *universally* certain, That those that do not exceed, must have either *Costive*, or, at least, Stools of a middle *Consistence*. There is nothing more *ridiculous*, than to see tender, *hysterical* and *vapourish* People, perpetually *complaining*, and yet perpetually *cramming*; crying out, They are ready to *sink* into the Ground, and faint away, and yet *gobbling* down the *richest* and *strongest* Food, and highest *Cordials*, to oppress and overlay them quite. *Fresh* and *generous* Food, mixing with the *sharp* Humours of the Stomach

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and *Bowels*, may, for some short Time, qualify and abate their *Irritation*, and may give a *Fillip* to the sluggish *Circulation*, and become, as it were, a *Cork* to stop the perpetual Fuming up of these *noxious* Steams upon the *Head* and *Brain*: But this is (pardon the Similitude) as if one should go to quench the *pestilential* Steams of a *Common-Shore*, by throwing in greater Heaps of *Ordure* and *Nuisance* into it. The proper *Remedy* in this Case, is, First, To cleanse the *fætid Abyss*, and then to preserve it clean by cutting off all the *Inlets* of *Putrefaction*. This will require a little *Courage*, *Labour*, and *Pain*; but the future *Ease* and *Sweetness*, will more than abundantly recompence them; for there is nothing more certain, than that of those born *sound* here in *England*, the *Head-aches*, *Stomach-aches*, *Colicks*, and *nervous Pains* and *Disorders*, *universally* proceed from *Idleness* and *Fulness* of *Bread*.

§. 4. Those who eat but one moderate *Flesh* Meal a Day, will have regularly once a Day a *Discharge* of the Remains of their Food. And, generally speaking, those that go oftner, have exceeded some how. Those who pretend

tend to cure themselves of *nervous* Disorders, or any other *chronical* Diseases, or preserve themselves from them, or lengthen out their Days, must *underdole* themselves (and therefore can go but *once* in *two* Days) even though they should undergo the Pain of *Costiveness*. For 'tis impossible the *Nerves* of those who have *slippery* Bowels, should ever be *braced* or *wound up*; for there the Cure must begin, where the *Evil* began; and must be communicated thence to the rest of the *System*, as a *Rope-maker* begins the *Twist* at one End of the *Rope*, and communicates it to all the other Parts. Our *Access* to the *Nerves* of the *Stomach* and *Bowels*, is obvious and open: To the *rest*, the Way is difficult, and far about. And since a *Relaxation*, *Weakness*, and *want of Spring* in the *Fibres*, is the *Origin* of all *nervous* Distempers, no Medicines, but such as *contract*, *stiffen*, *wind up*, and *shorten* them, can remedy this *Evil*; and they must necessarily *contract* and *bind up* the *Fibres* of the *Stomach* and *Guts*, as the Parts they first approach and exert their *Virtue* upon. And he, who without *firm* Bowels, thinks to cure a *nervous* Distemper, labours as much in vain as he

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he who would keep a *Fiddle-string* soaking in *Oil* and *Water*, to make it *vibrate* or play off a fine *Composition of Musick*.

§. 5. By *Experience* and *Observation* I have found, That in those who have one regular *Discharge* in *Twenty four Hours*, the *Time* of the *Progress* of the *Food* from the *Stomach*, till its *Remains* are thrown off, is *Three Natural Days*. And in those who go but *once* in *Two Days*, the *Time* is *Six Natural Days*. The *Curious* may be satisfied in this, by swallowing an *Almond*, or any other *Nut*, which passes without being broken, or making any *Irritation*. The *Reason* is this, That a smaller *Quantity* of *Food* is retained *longer*, by their *Suction*, at the *Mouths* of the *Lacteals*, to drain it intirely of its *Chyle*, and its *Weight* being less, the *Concoctive Powers* have the greater *Force* upon it, and so it is retained till it is perfectly *Digested*, and drain'd of all its *Humidity*; whereby such *People* become *Costive*: Whereas in *People* that *exceed*, the contrary *Causes* precipitate the *Course* of the *Aliment*, and so leave the *Bowels* always *slippery*. And nothing can more
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demonstratively shew an *Excess*, than the *Lubricity* of the Discharge; and I have often observed in tender Persons, and those of weak *Nerves*, when a Meal (I mean only of those who eat *Flesh* Meat but *once* a Day) has been a little too hard for the *Stomach*, tho' the *Spirits* have been full and free, and the *Health* equal and good, by duly *proportioned* Meals for two preceding Days; the Third Day, when the gross Meal came off, they have been full of *Wind* and *Vapours*, their *Eyes* dim, and their *Heads* heavy, with flying *Rheumatick* Pains over the Body, and *Colick-Gripes*. From whence we may draw these three *Corollaries*.

Coroll. 1. It requires the same Time for the *unconcocted Chyle* of a gross Meal to run the *Circle* of the Habit, and the *feculent* Remains to pass thro' the *Guts*; the First by *Perspiration*, and the Last by *Siege*.

Coroll. 2. We may likewise gather from thence, a *Confirmation* of that *Aphorism* of the *Physicians*; That the *Errors* of the first *Concoction*, are never mended in the *subsequent*, unless the
Case

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Case to be mentioned in the next Paragraph be an *Exception* to it. For the gross *Meal* gave rather more *Uneasiness*, when it came to be thrown off by *Perspiration*.

Coroll. 3. From hence we may also see, the Ridiculousness of the *Vulgar* Opinion, ascribing universally the *Pain* they suffer, or the *Relief* they find, to the *last Meal* or *Medicine*.

§. 6. There are some sorts of *Food* which may oppress and load the *Stomach* and *Alimentary Ducts* in the first *Concoction*, which may be very safe and benign in the *subsequent* ones. For instance, *Cheese*, *Eggs*, *Milk-Meats*, and *Vegetable Food*, tho' duly prepared, and justly proportioned in *Quantity*, may chance to lie heavy on the *Stomach*, or beget *Wind* in the *Alimentary Passages* of some Persons (and yet drinking of *Water* will always remedy this *Inconveniency*): But these neither having their Parts *strongly* united, nor abounding in sharp *Urinous Salts*, when they become sufficiently diluted with a watry *Menstruum*, or dissolved into their *Component* Parts, and their Parts being still smaller than the *smallest Vessels*, and their

their *Union* constantly less, than the *Force* of the *Concoctive* Powers, in Persons who have any remaining *Fund* of Life in them; will thereby yield a sweet, thin, and easily *Circulating Chyle*, in the after *Concoctions* become *benign* and *salutary*, and afford no *Materials* for *Chronical* Distempers. And the *Wind* thence generated, not being *pointed* and *armed* with such sharp *Salts*, as those of *Flesh* Meats, or the *Corrosive* Juices of *Spirituons* Liquors, will be as innocent and safe, as the *Element* we breathe in.

§. 7. The Second *Evacuation* is by *Water*, whose *Circumstances* and *Condition*, tho' little adverted to, may be of great Service to discover both the State of our *Constitution*, and the *Proportion* of our *Diet*. Some People are frightened when they find their *Water* *turbid*, *broken*, and full of *Brick-dust* *Sediment*; whereas that is the best *Symptom* it can have. For tho' it supposes the *Blood* loaded with *Urinous* *Salts* and *Crudities*; yet 'tis still better they should pass off than continue in the *Habit*. On the contrary, when those that live *freely*, have *Quantities* of *pale*, *limpid* and *sweet* *Water*, 'tis a certain Sign that the Per-

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spiration is stopp'd ; that neither the *First* nor the *Secondary Concoctions* have been duly perform'd ; that the *Chyle* has not been sufficiently *broken*, nor the finer *Secretions* duly made by the lesser *Drains* ; and that the *Urinous Salts* are still retained in the *Habit*. Upon which must needs ensue *Oppression of Spirits*, *Chills* upon the *Extremities*, *flying Rheumatick Pains* over the Body, *Head-aches*, *Cholicks* and *Gripes*. And here it may not be amiss, to take Notice of the Difference of the pale Water of *Hypochondriacal* and *Hysterical* Persons, from that of those who labour under a true *Diabetes*, the Apprehension of which terrifies so often the *Low* and *Dispirited* Persons of the *First Class*. The *Water* of both has the same *Appearance*, both in *Quality* and *Quantity* ; at least, in the first Instance, they are both attended with the same *Sinking* and *Dispiritedness*. But in a true *Diabetes*, there is a constant *Thirst*, a *low* but *quick Pulse*, the *Water* is much *sweeter*, and continues longer to come off in *profuse Quantities*, insomuch, that sometimes it is so violent as to run down the *Party* in a few Days. In *Hypochondriacal* and *Hysterical* Persons, there is little or no *Thirst*, never a *quick Pulse*,

Pulse, but rather too *low* and *slow* a one, the *Flux* soon stops of itself, or by any little *Diaphoretick* Medicine, and they are cold upon the *Extremities*, which the others are not.

§. 8. That *bluish* and *variegated* Film, which sometimes looks like Oil and Fat swimming on the Water of *Scorbutick* and *Cachectick* Persons, is nothing but the *congregated* Salts which are crowded so thick together, that they are ready to shoot into *Clusters*, much like the Film of a * *Lixivium*, when standing for the *Crystallization* of fixed Salts. The Water which has a *light* Cloud hanging almost from the *Top* to the *Bottom*, is of a *bright* Amber Colour, and about *three Quarters* of the Liquor taken down, is best, and a certain Sign of a *due* *Concoction*, a just Proportion of Food, and a total Absence of *Repletion* and *Crudity*. And those who live *Temperately*, use *due* *Exercise*, and enjoy a perfect State of *Health*, always make such Water.

* i. e. A Lye.

§. 9. Those who are subject to great *Quantities* of *limpid* and *pale* Water, ought to conclude, that their Food has been too *heavy* in *Quality*, or too much in *Quantity* for their *Concoctive Powers*, or their *Labour* too little; and that therefore, they ought to proportion both, for the future, with more *Caution* and *Exactness*, by living *low* for some Time, or using more *Exercise*. And to stop their *Flux* of *pale Water*, they ought to take a little *Gascoign's Powder*, *Confection* of *Alkermes*, or *Sir Walter Raleigh's Cordial* at Night, and drink liberally of *small warm Sack Whey*, with a few *Drops* of *Spirit of Hart's-horn*, to set the *Perspiration* in order again. Those, on the other Hand, who make *high colour'd*, *foul*, and very *turbid Water* in smaller *Quantities*, have either inflamed their Blood too much with *Spirituuous Liquors*, or loaded it with too great a *Quantity* of *Animal Salts*. To prevent therefore *Disorders* and *Diseases*, they must lessen the *Quantity* of their *Flesh Meat*, and temper the Heat of their *Wine* with *Water*. Else they will lay the Foundation of some *Acute Inflammatory*, or dangerous *Chronical Distemper*.

§. 10. The

§. 10. The worst kind of Water of all, is that of a *dark Brown* or *dirty Red*, in a small *Quantity*, and without any *Sediment*. This kind of *Water*, in *Acute* Diseases, always indicates insuperable *Crudity*, *high Inflammation* tending towards *Mortification*, and a dying *Languor* in Nature. And in Persons labouring under no *visible* Distemper at the Time, an almost total *Debility* of the *Concoctive* Powers, an inseparable *Union* of the *Constituent* Parts of the Blood, the highest Degree of *Crudity*, and a *Deadness* in all the *Animal Functions*: And, if preceded by long continual *Excesses*, requires the Advice of a *Physician*. I shall say nothing of *Coffee-colour'd*, *Bloody*, *Wheyish*, or *Purulent* Water, or that with white *Gravel*, *Films*, *Rags* or *Bits* of broken *Membranes*. They are well known to be *Nephritick*, or *Symptoms* of an *Ulcer* somewhere in the *Urinary* Passages.

§. 11. There happens also an *Evacuation* both by *Siege* and *Urine*, to some weak Persons of *relaxed Nerves*, that extremely alarms the *Patient*, and is not
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so readily accounted for in common *
Ætiology. It is when either a *white*
transparent, viscid Substance, like *Gelly*, is
 constantly voided by the *Bowels*, more
 or less; or when a *white, milky, glemy*
 Substance, like *Cream* or laudable *Mat-*
ter, settles in the *Water*: Both these *Ap-*
pearances are commonly ascribed to an
Ulcer in the *Guts*, or in the *Kidneys*,
 the very Apprehension of which is
 almost sufficient, in some low Persons,
 to bring on the Distemper feared:
 And yet, I am very certain, there is
 neither *Ulcer* nor true *Matter* in either
 Case, as I propose them. For where
 there is violent and acute Pain, or
Matter of different Colours or Mixtures,
 there, very possibly, may be, nay,
 certainly there is, an *Ulcer*. But in the
 Case I here intend, there is very little
 or no Pain; no *Hectical Paroxysms*,
 which always attend an inward *Ulcer*;
 no bloody or *sanious* Mixtures, which
 always betray the inward Sore; no
fetid Smell to imply Corruption. For
 the Cases I put at present, happen to

* That Part of Physick which teaches the
 Causes of Diseases.

Persons the least capable of *Inflammation* or *Imposthumation*, viz. to *paralytick* Persons, or those of a Natural Tendency that Way, to *cold*, *vapourish* Persons of low *Spirits* and weak *Nerves*, whose Pulse is low and slow, and their natural *Functions* weak and languid; all which evidently shew, that these Discharges cannot come from an *Ulcer*. The first *Case* I take to be either an Obstruction of some of the *Lacteals*, whereby the *Chyle* cannot be carried off in any sufficient Quantity, but passing through the *Guts*, and its more Watry Part being *evaporated*, it becomes thick and *gelatinous*, and is thrown off at last with the Remains of the Food. Else it must be an Obstruction of those *Glands* of the *Guts*, by which a viscid *Matter* for lubricating of them, is commonly secreted; by the Imprisonment and *Evaporation* of which Matter, it thickens and turns like a *Gelly* (as it does by Cold, or Overfeeding, in the *Glands* of the *Mouth*, *Throat* and *Windpipe*) and, at last, by the Squeezing of the *Guts*, is thrown off. And in the same Manner, I take that *Milky Substance* subsiding in the *Water*, in such a *Case* as I have mentioned, to arise from

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a *Relaxation* of the *Glands* of the *Kidneys* and *Bladder*, and other *Urinary* Passages; and that both are to be cured the same Way other *Nervous* Distempers are cured, *viz.* by a proper *Regimen* of *Diet*, and a Course of contracting, strengthening, and volatile Medicines.

§. 12. The insensible *Perspiration* is the *Third Evacuation* to be considered. The *Statical Chair* invented by *Sanctorius*, for examining the *Quantity* of the *Perspiration*, however *ingenious* and *delightful* in *Speculation*, is too *cumbersome* and *laborious* to be of any great Use in *Common* Life. 'Tis certain, however, that the free and full flowing of this *Evacuation*, is as necessary to *Health* as any of the grosser, since in *Quantity* it is at least equal to both the forementioned; and an *Obstruction* thereof, is generally the Source of all *Acute* Diseases, as it is a *Consequence* of all *Chronical* ones. And therefore, I have advised those who are much abroad in *Easterly* and *Northerly* Winds (which most of any obstruct *Perspiration*) and have *Fluxes* of *white* and *pale Water*, to a ready *Antidote* to prevent the Beginnings of these *Obstructions*.

§. 13. Dr.

§. 13. Dr. * JAMES KEILL has made it out, beyond all possibility of doubting, that *catching* of Cold is nothing but *sucking* in, by the Passages of Perspiration, large Quantities of moist Air and nitrous Salts, which, by thickening the Blood and Juices (as is evident from Bleeding after catching Cold) and thereby *obstructing*, not only the Perspiration, but also all the other finer Secretions, raises immediately a small Fever and a Tumult in the whole Animal Oeconomy; and, neglected, lays a Foundation for Consumptions, Obstructions of the great Viscera, and universal Cachexies. The Tender therefore, and Valetudinary ought cautiously to avoid all Occasions of catching Cold, and if they have been so unfortunate as to get one, to set about its Cure immediately, before it has taken too deep Root in the Habit. From the Nature of the Disorder thus described, the Remedy is obvious; To wit, Lying much abed, Drinking plentifully of small warm Sack Whey, with a few Drops of Spirit of Harts-horn, Posset-Drink, Water-Gruel, or any other warm small Liquors, a Scruple of Gascoign's Powder Morning and Night, Living

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* *His Statica Britannica.*

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low upon Spoon-Meats, Pudding and Chicken, and drinking every thing warm: In a Word, treating it at first as a small Fever, with gentle Diaphoreticks; and afterward, if any Cough or Spitting should remain (which this Method generally prevents) by softening the Breast with a little Sugar-Candy, and Oil of Sweet Almonds, or a Solution of Gum Ammoniac, an Ounce to a Quart of Barley Water, to make the Expectoration easy; and going cautiously and well cloathed into the Air afterwards. This is a much more natural, easy and effectual Method, than the Practice by Balsams, Linctus's, Pectorals, and the like Trumpery in common Use, which serve only to spoil the Stomach, oppress the Spirits, and hurt the Constitution.

§. 14. The surest Way of maintaining and promoting a due *Perspiration*, is, To take down no more Food than what the *Concoctive Powers* are sufficient to reduce into a due *Fluidity*, and the Expences of Living require, to prosecute necessary *Exercise*, and use the other *Assistances* advised in the foregoing Chapters. Want of due *Rest*, and the *Refreshment* that follows upon it, *start-*
ing,

ing, *tossing*, and *tumbling* abed, are certain Signs that the *Perspiration* is not duly carried on in the *Night Season*. And therefore, in order to remedy this, a greater Proportion of *Exercise*, a greater Degree of *Abstinence*, or some gentle domestick *Purge*, must be had recourse to the next Day. *Colical Pains*, *Gripes* and *Purging*, much *Eruetation* and *Belching* of Wind, *Low Spiritedness*, *Tawning* and *Stretching*, are infallible Signs that the *Perspiration* flows not freely and plentifully then. And therefore the same *Remedies* ought to be prosecuted, as soon as an Opportunity offers; else the Party will suffer at last. *Wind*, as *Sanctorius* observes and demonstrates, is nothing but obstructed *Perspiration*: And *Tawning* and *Stretching*, are but *Convulsions* of the proper *Muscles* and *Organs* appointed by Nature, the one for *Pumping* up *Wind* from the *Bowels*, the other for pressing upon the *Excretory Ducts* in the *Skin*, to force out the sluggish *perspirable Matter*. And 'tis beautiful to observe, how wisely Nature has contrived the *Spasms*, *Cramps* and *Convulsions* of the proper *Organs*, to expel every *noxious* and *extraneous* Body out of the *Habit*. Thus

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Coughing is a *Convulsion* of the *Diaphragm*, and *Muscles* of the *Breast*, to throw out viscid *Phlegm*; *Vomiting* of the *Stomach*, (assisted by the *Diaphragm* and *Muscles* of the *Abdomen*) to throw up its *Crudities*, and those of the *Bowels*; or to expel *Sand* or *Stones* from the *Kidneys*. The *Throws* of *Labouring Women*, are to bring off the *Burden*. *Sneezing* is an *Effort* of the proper *Muscles*, to eject some noxious *Particles* from the *Organs* of *Smelling*. *Shivering* and *Stretching* to assist *Perspiration*; and *Tawning* to pump up noxious *Wind*. And even *Laughing* itself, is an *Effort* of the *Muscles* of the whole *Trunk*, to throw off something that its delicate *Membranes* cannot bear. And, Lastly, *Hysterical Fits* and *Convulsions*, both in *Infants* and *Persons* come to *Maturity*, are but violent *Efforts*, *Struggles*, *Workings*, *Cramps* and *Spasms* of all the *Muscles* of the whole *Body* together, to expel, squeeze, and press out the sharp *Acrimonious Wind*, *Fumes* and *Vapours* from the *Cavities* of the whole *Machine*.

§. 15. There is an *Evacuation* incident to *Persons* of weak *Nerves*, which could not conveniently come in under

under the general *Division*, because it happens too seldom to make a new Member of it. It is a *Discharge* of thin *Rheum* from the *Glands* of the Mouth, Throat and Stomach, and is called by some, A *Nervous* or *Scorbutick* Spitting. It rises sometimes to the Height of a *petit Flux de Bouche*, as the *French* call it, and threatens some tender Persons, as they apprehend, with a *Consumption*, though it imply nothing less. We may observe some, who are struck with a deep *Palsy*, to flow at the Mouth, and drivel down their Breasts; insomuch, that the Afflicted of this Sort, who are advanced in Years, can scarce speak intelligibly for the *Flux*, 'till they have first emptied and cleaned their Mouths. And this arises to so great a Height, in some much broken *paralytick* Persons, that, upon the slightest Occasions, either of Joy or Grief, they are apt to run into a *Profusion* of Tears, Sighs and Sobblings. And some sorts of *Ideots*, and those *Hysterically mop'd*, and most of those who suffer from *relaxed* and *weak Nerves*, are more or less subject to these *Salival Discharges*, especially after *Excesses* in Diet. Hence the *first* Sort receive the Appellation of *Snivellers* or *Drivellers*.
And

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And the Difficulty of the Cure of all the Deseases of weak *Nerves* depends much on the Quantity and Constitution of this *Flux*. For much and long Spitting and Running off of this *Rheum*, implies a total *Relaxation* of the whole *Nervous System*, and shews neither the first nor second *Concoctions* have been duly performed. I have frequently had Occasion to shew, how *Excesses* in the *Quantity* or *Quality* of the Food, in Persons of *relaxed* and weak *Nerves*, begot a viscid and gross *Chyle*, of which *that Part*, which could not get through the *Lacteals*, lay fermenting and putrifying in the *Alimentary Passages*, begot *Wind*, *Gripes* and *Colicks*, and at last wrought itself off like a *Purge*; and that *that Part*, which got through the *Lacteals*, and was received within the Limits of the *Circulation*, being too gross and glewy to be mixed with the old *Mass* of the *Fluids*, to circulate through the smallest Vessels, and to enter the fine *Perspiratory Glands*, would necessarily be thrown into the wider, more spongy and loose *Salivary Glands*, which are appointed by Nature to discern the more *Glutinous* Parts of the Fluids. And from thence this *Salivary Inundation*

tion proceeds. The *Fact* is, When those of weak *Nerves*, commit habitual Excesses in their *Diet*, the *Glands* and small *Vessels* of all the Body are *tumified*, *swelled* and *obstructed* thereby, as they needs must be. And 'tis from the Pressure of these *enlarged Glands*, and the obstructed *capillary Vessels* on the *Nerves*, and patent *Blood Vessels*, that most of the *Evils* they suffer under proceed. But more especially, are the *Glands* appointed to draw off the more viscid serous Part of the Blood, *obstructed* and *tumified* thereby. Upon which Account, as *Baglivi* advises, to enquire well into the State of the *Tongue* and *Mouth*, in order to discover the Condition of the *Stomach*, *Guts* and *Bowels*; so I think 'tis highly reasonable, in a *Chronical* Case, to have great Regard to the Condition of the *Eyes*; and if a dead, cold *Languor* be observed in the *Hue* or *Water* of them (as *Jewellers* speak of *Diamonds*) and more-especially if the *lachrymal Gland* in the Corner next the *Nose*, which I always narrowly inspect; if, I say, this *Gland* be found harder, or larger than ordinary, *swelled* and *tumified*, it must certainly be concluded, whatever else be in the Case, there

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there must be a relaxed State of *Nerves*, much *Vapours*, weak natural *Functions*, and a mismanaged *Regimen*. And it is from the Obstruction and Swelling of this and the other *Glands*, in and about the *Eyes*, and their Pressure upon the *Optical Nerves*, and fine Blood Vessels, that those *Spots*, *Flies*, *Atoms*, *Dimness*, *Darkness*, and *Confusion* of Sight, in *Vapourish* and *Hysterical* People proceed. For this *Gland* shews, that the whole *serous Glands* in the upper Regions of the Body are, in Proportion, tumified and swelled with *viscid* Humours through *Excess* of Diet; unless the Person have suffered there by Accident, or labours under some natural Disorders of the *Eyes*. From the Obstruction and Swelling of the *Salivary Glands* in the Mouth, Throat and Gullet, proceed also those *Choakings*, *Gulping* and *Strangling*, that *Hysterick* Persons so often complain of. The *Wind* and *Crudities* lodged in their Stomach and Guts, and the rest of the Cavities of the Body, pressing to get *Vent* upwards, are resisted and stopp'd in their Passage by the *Diaphragm*, whereby the Inspiration is streightned, and, by the Bulk of these *Glands* throughout the Gullet, the Way is intirely stopp'd; which

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which raises such a *Tumult* and *Struggle*, as produces the mentioned *Symptoms*; which I have not Leisure to detail here more minutely. Now this *Salivation* or *Discharge* of the thinner *Rheum*, and that *Coughing* and *Hawking* of more viscid *Flegm*, commonly called a *nervous Cough*, as also the *Chincough* of Children, and all such *Discharges* of sharp *Serum* in Persons of weak and relaxed Nerves, is an *Effort of Nature* to relieve them. And, if discreetly managed, and duly heeded, would prove a *Crise* to their Disorders, and quite free them from their present * *Paroxysms*, and set the *Circulation* and *Perspiration*, and, consequently, the *Spirits*, at Freedom and Liberty again. Some Persons most distractedly run to *Drams* and *Cordials* to remedy this *Evil*, to stop the Violence of this *Deluge*, and to raise their drooping *Spirits*. But it serves only to thicken the *Flegm*, shut up the Mouths of the *Salivary Glands* closer, and so to perpetuate the *Evil* they mean to cure. Others devour large Quantities of *high* and *generous Foods*, because they find a

* The sharpest Part of the suffering Fit of a Disease,

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little Relief to their Spirits, from the first *Run* of the sweet, thin, and *spirituous Chyle*: But this is only adding *Fewel* to the *Fire*, and running on in a perpetual Round of *Lowness* and *Slavering*. Whereas, would they suffer Nature to act her own Way, to carry on this *critical Discharge*, as far as it will go, without offering in the least either to check or promote it; but by thin, light Food, and cool Liquors, in moderate, or rather under-dosed Quantities, support her in the manner the *Concoctive Powers* are sufficient for; after she had discharged all the *Crudities* from the Mass of the *Fluids*, by these *Emunctory Glands*, and thereby given a free Passage to the *Wind* to escape the Way it tends, the *Salivation* would lessen gradually, and at last stop of itself. And if then towards the *Decline*, a gentle *Vomit*, to pump up the slow and viscid Remains of the *Wind* and *Flegm* in the Upper Part of the *Alimentary Passages*, and afterwards a gentle *Stomachick warm Purge*, to scour the Lower Part of these *Tubes*, were carefully administred; the *Patient* would soon find a *clear Head*, *lightsome Spirits*, Ease and Freedom from Pain and Oppression; the *Circulation* and *Perspiration*

ration would be soon brought to their natural and sound State, and *Health* and *Cheerfulness* restored together; unless a mortal or habitual * *Ptyalism* was the Case, which I have sometimes observed, as fatal and incurable as a true *Dropsy*, or inveterate *Diabetes*; all which owe their Being to a deep *Scurvy*, whereby the Globular Part of the Blood is intirely broken, and the Serum made a meer *Lixivium* or Lye.

RULES for Health and Long Life, drawn from the Head

Of EVACUATION.

1. *C*OSTIVE Stools are Signs of over-heated Blood, too spare Feeding, Slowness of Digestion, or Weakness of the Guts.

2. *Purging* Stools shew intemperate Feeding. Too full a Meal has the Effects of a *Purge*, fills the Guts with Wind, and gives Gripes. *Mercury*, and

* Spitting.

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even the *Bark*, *Diascordium* and *Treacle*, if over-dosed, purge.

3. *Head-aches*, *sick Stomachs*, *Vapours*, *low Spirits*, *Gripes* and *Colicks*, proceed from *Cramming*; and are ever accompanied with *loose Stools*.

4. Those that live *temperately*, have one regular *Stool a Day*. Those who have more, exceed.

5. The *Cure* of all *Relaxations* of the *Nerves* (the *Source* of *Chronical Diseases*) must necessarily begin at the *Stomach* and *Guts*.

6. The *Time* from eating a *Meal*, till its *Discharge*, is *three Days*, in those that have *one Stool a Day*: *Six* in those that have but *one* in *two Days*.

7. A *gross Meal* produces more *Disorders*, the *Day* the *Excrements* of it go off, than the *Day* it is eaten.

8. A *Meal* takes the *same Time* to get through the *Habit* by *Perspiration*, that its *Remains* do to pass through the *Guts*.

9. The

9. The *Errors* of the first Concoctions cannot be *mended* afterwards.

10. *Pain* or *Relief*, is not always the *Effect* of the *last Meal* or *Medicine*, that was taken down.

11. Though *Cheese*, *Eggs*, *Milk* and *vegetable Foods*, may be *hard* to digest, without drinking of *Water*, to some *Stomachs*; yet their *Chyle* is *good*, and produces no bad *Effects*.

12. *Turbid Water* with *Brick-dust* *Sedi-*
ment, proceeds from the *critical Dis-*
charge of what was preternaturally
retained in the *Habit*.

13. *Pale sweet Water*, from the
Urinous Salts being yet *retained*.

14. There is great *Difference* be-
tween *Hysterick pale Water*, and that
which proceeds from a *Diabetes*.

15. That *Appearance* of *Fat* on the
Urine of some *People*, is nothing but a
thin Film of *Salts*,

16. *Bright*

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16. *Bright Amber-colour'd Water*, with a *light Sediment* rising toward the Top, amounting to *three Quarters* of what is drank, is a Sign of *good Digestion*.

17. Great Quantities of *pale Water* proceed from *Excess* in the *Quantity* of Food, and *want* of *Exercise*. The Cure of it is performed by *eating less*, using *more Exercise*, and taking some *Diaphoreticks*, to set the *Perspiration* right.

18. *High-colour'd turbid Water* in *small Quantity*, shews abundance of *Animal Salts* in the Habit, or the immoderate Use of *Spirituuous Liquors*: And must be cured by *vegetable Food*, and *Water*, or other *small Drink*.

19. *Dark brown Water*, or of a *dirty red*, is extremely *dangerous*, both in *acute Cases*, and in those that seem at present to *ail nothing*.

20. *Bloody purulent Water*, and full of *Films*, is a Sign of *Nephritick Ailments*, *Stone* and *Gravel*.

21. The

21. The viscid Matter like Gelly, in the Stools, and the viscid milky Substance somewhat like Matter in the Urine of some People of weak Nerves, proceed from a Corruption of the Liquor of the Mucous Glands of the Intestines, and of the Bladder, and other Urinary Passages.

22. Obstruction of Perspiration is one Source of acute Diseases, and a Consequence of chronical ones.

23. Catching of Cold is an Obstruction of Perspiration, by the humid and nitrous Particles of the Air. It should be cured by gentle Diaphoreticks, and not by Balsamick Pectorals, which do no good but in the End of the Cure, to promote Expectoration from the Lungs, if there be any Occasion for it.

24. Persons of weak Nerves, have often a critical Flux of Rheum from the Glands of the Mouth and Throat, to a very large Quantity, which, if not tampered with, brings them great Relief.



C H A P. VI.

Of the PASSIONS.

§. 1. **I** Come now, in the Order of my first proposed *Method*, to treat of the *Passions*; which have a greater Influence on *Health* and *Long Life*, than most People are aware of. And that I may propose my *Scheme* with the greatest Clearness I can, I will lay down some *Propositions* or *Axioms*, as the Ground-work on which it is founded.

Prop. 1. The *Soul* resides eminently in the *Brain*, where all the *Nervous Fibres* terminate inwardly, like a *Musician* by a well tuned *Instrument*, which has *Keys* within, on which it may play, and without, on which *other Persons* and *Bodies* may also play. By the *inward Keys*, I understand those Means by which the *Thoughts* of the *Mind* affect the *Body*; and by the *outward,*

ward, those whereby the *Actions* or *Sensations* of the *Body* affect the *Mind*. Both these *Affections* may be called *Passions* in a general View, as either Part of the Compound is acted upon.

Scholium. As a *Man* is compounded of two different *Principles*, *Soul* and *Body*; and as there are two different kinds of outward *Objects*, by which these two different *Principles* may be acted upon; to wit, *Matter* and *Spirit*; the *Passions* in these two different *Views* may be divided into *Spiritual* and *Animal*. As to the *first* Branch of this Division, since *Spirits* (if I may be allow'd there are any such Beings) may be supposed to act upon *one another*, without the *Mediation* of *Organical Bodies* (such perhaps was *St. Paul's Extasy*, when he was rapt up into the *Third Heavens*; such was *Moses's Commerce* with his *Maker*, when he spoke to *God Face to Face*; such must the *Influence* of the *Divine Grace* be supposed; and all who allow of *Revelation*, admit, that the *Soul* may be *Serene* and *Tranquil*, while the *Body* is in *Distress* and *Pain*; and even all the *Stoick Philosophy* is grounded on this *Distinction*) it must have a real

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Existence in *Nature*. And the *other* Branch must also be allow'd by all those, who cannot think *Brute Animals* mere *Machines*, and who observe, that we have *Impressions* made on our Bodily Organs, which affect us, sometimes very deeply, even in our *Sleep*. However these Things be, 'tis sufficient for my Purpose, that *Man* is allowed to be a compounded Being, on which outward Objects may act, to abstract the Consideration of the *Impressions* made on the *Spirit*, from those made on the *Body*.

Prop. II. The *Union* of these two *Principles* in the Compound, *Man*, seems to consist in *Laws* præ-establiſh'd by the *Author* of *Nature*, in the *Communications* between *Bodies* and *Spirits*, as there are, no doubt, *Laws* establiſh'd for *Spirits*, in their *Commerce* and *Actions* upon *one another*. For every one knows there are *Laws* of *Nature*, establiſh'd by its *Author*, for the *Actions* of *Bodies* upon *one another*.

Scholium. These *Laws* of the *Actions* of the *Soul* on the *Body*, and of the *Body* upon the *Soul*, are never to be known
to

to us, but by their *Effects*; as the *Laws* of Nature in the *Actions* of *Bodies* upon one another, were first discovered by *Experiment*, and afterward reduced into general *Propositions*. One *Law* of the *Action* of the *Soul* on the *Body*, & *vice versa*, seems to be, That upon *such* and *such* *Motions* produced in the *Musical Instrument* of the *Body*, *such* and *such* *Sensations* should arise in the *Mind*; and on *such* and *such* *Actions* of the *Soul*, *such* and *such* *Motions* in the *Body* should ensue; much like a *Signal* agreed to between two *Generals*, the one within, the other without a *Citadel*, which should signify to one another, what they have before agreed to, and established between them; or like the *Key* of a *Cypher*, which readily explains the otherwise *unintelligible* *Writing*. Besides these *Passions* and *Affections*, which are *involuntary*,

Prop. III. As *Bodies* are purely *passive*, and are acted upon by other *Bodies*, conformable to the settled *Laws* of *Nature*; in *Spiritual* Beings, on the contrary, there is an *active*, *self motive*, *self-determining Principle*, by which it directs and manages itself with regard not only to

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its *own self*, and its *own Sentiments*; but also to its *Actions* and *Influence* on other Beings without it, and their *Actions* and *Influences* on it. And this is the *Foundation of Liberty, or Freewill*, in *Rational and Intelligent Beings*.

Scholium. That this *Faculty* or *Principle* really exists, and is essential to *Spiritual Beings*, is as certain, as that there is *Motion* in the *Universe*, or that *Body* and *Spirit* are essentially different. For, that *Motion* is not essential to *Bodies*, is as certain as that *Bodies* are *impene- trable*; and that the *Quantity of Motion* in the *Universe*, may be, and is daily increased, is as much *Demonstration* as any *Proposition* in *Euclid*. And if *Motion* be, is, or may be increased, it must arise from *Spiritual Beings*. And he who can deny this, only shews himself ignorant of the *Principles* of all true and just *Philosophy*, and of the first *Elements* of the *System* of material and spiritual Beings. For further Conviction of this, and clearing up all possible Objections and Difficulties, I refer the Reader to the *Learned and Ingenious Dr. Clarke*, in his *Answer to the Enquiry into Liberty*, and his *Letters to*
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Mr. Leibnitz, where he has treated this Matter with the greatest Perspicuity and Justness. Besides these now mentioned Principles,

Prop. IV. As in *Bodies* there is a Principle of Gravity or Attraction, whereby, in *Vacuo*, they tend to one another, and would unite, according to certain Laws and Limitations established by the Author of Nature: So there is an Analogous Principle in *Spirits*, whereby they would as certainly, in their proper Vacuity, be attracted by, tend to, and unite with one another, and their first Author, Centre, and the Rock out of which they were hewn (to use a Scripture-Phrase) as the Planets would to one another, and to the Sun. And this is nothing else but what in Scripture is called CHARITY.

Scholium. This Proposition is as certain as the Rules of Analogy are, which, in my Opinion, are the Foundation of all the Knowledge we can have of Nature, while we can see only a few Links of the Universal Chain, and but a few disjointed Parts of the grand System of

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of the *Universe*. The *Author of Nature*, who could create *intelligent Beings* only in order to make them *Happy*, could not leave them to so many different *Attractions*, without *implanting* into their *Essence* and *Substance*, as an *Antidote* to such Variety of *Distractions*, an *infinite Tendency*, *Bent* and *Biafs* towards Beings of the same Nature, and towards *Himself*, who was the *Cause* and *Object* of their *Felicity*. And even in this our *lapsed* and *forlorn Estate*, there remain evident *Footsteps* of this *Principle* yet un-effaced. Such are the *Checks* of *Conscience*, *natural Affection*, and the universal *Desire* of *Immortality*, and *Dread* of *Annihilation*; what the World calls the *Seeds of Honour* and *Renown*; all that *Concern* and *Regard* paid mere *Romantick Heroes*; and the *Worship* bestow'd by all Nations, who are not sunk into mere *Brutality*, on some *Superior* and *Invisible Powers*. These are *Remains* of this *Principle*, and its *Workings*, sufficient to shew its *Reality à posteriori*; as the *Laws of Analogy*, and the *Nature* and *Attributes* of the *first Being*, shew it *à priori*. Those who admit of *Revelation*, cannot doubt of it for a *Moment*; for

for * *Moses* calls it, *A Law engraven on the Heart of Man*, and † *St. Paul*, *The greatest Perfection of Human Nature*.

Coroll. 1. Hence the true Nature of Supreme *Spiritual Good* and *Evil* may be discovered. For if there be impressed on *Spiritual Beings*, an *infinite Tendency*, *Bent* and *Biaſs*, to be reunited with their *Divine Original*, and the Place in the *Divine Substance* out of which they were formed (if I may ſpeak ſo in a *Figurative Senſe*) then their being *finally united* with this their *Divine Original*, is the *Supreme Spiritual Good*, and the ſeveral *Approaches* toward this Union, are *inferior Spiritual Goods*; as the being *finally ſeparated* from it, is the *ſupreme Spiritual Evil*, and the ſeveral Steps toward this Separation, *inferior Spiritual Evils*. And the Means of this Union and Separation, are *Moral Good* and *Evil*.

Coroll. 2. By *Schol.* of *Prop.* 1. the moſt general Diviſion of the *Paſſions*,

* Deut. xxx. 14.

† 1 Cor. xiii. ult.

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was into *Spiritual* and *Animal*. As, in the *first* Sense, *Passion* may be defined, The *Sentiments* produced on the *Soul* by *external Objects*, either *Spiritual* ones immediately, or *Material* ones, by the *Mediation* of the *Organs* of the *Body*: So, in the *second* Sense, *Passion* may be defined, The *Effect* produced by *Spirits* or *Bodies*, immediately on the *Body*. And since outward *Objects* may be considered as *Goods* or *Evils*, the most natural Division of the *Passions* (whether *Spiritual* or *Animal*) as they regard these *Objects*, is into the *Pleasurable* and the *Painful*; which exhausts their whole Extent. And in this Sense all the *Passions* may be reduced to *Love* and *Hatred*, of which *Joy* and *Sorrow*, *Hope* and *Fear*, &c. are but different *Modifications* or *Complexions*, as they may be called. I do not descend to a more particular Account, not intending an accurate Treatise on the *Passions*, but only to lay a Foundation for some general *Observations* on them, as they regard and influence *Health* and *Long Life*.

§. 2. In relation to the *Organical Instruments* of the *Body*, and the *Effects* wrought on them, or the *Disorders* brought

brought upon them, the *Passions* may be divided into *Acute* and *Chronical*, after the same Manner, and for the same Reason, as *Diseases* are. The *acute Passions*, whether *pleasurable* or *painful*, have much the same *Effect*, and work much after the same *Manner*, as *Acute Diseases* do. They effect a brisk and lively *Circulation* of the *Fluids*, *crisp* up and *constrict* the Solids for some short Time. Thus sudden *Gusts* of Joy or Grief, *Pleasure* or *Pain*, stimulate and spur the *Nervous Fibres*, and the *Coats* of the *Animal Tubes*, and thereby give a *Celerity* and brisker Motion to their included *Fluids*, for the same Time. And the *Functions* of the *Heart* and *Lungs* being *involuntary*, they have their more immediate *Effects* upon them. Thus both sudden Joy and Grief, make us *breathe* short and quick, and make our *Pulse* small and frequent. The retaining our *Breath* for some Time (for so far our *Breathing* is *voluntary*) to reflect more *intensely* upon the painful Object, forces at last a strong *Exspiration*, which becomes a *Sigh*. Thus a sudden painful *Idea*, makes a quicker *Circulation* of the Blood, and thereby throwing a greater

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Quantity thereof upwards, through the *proportionally* larger Branch of the *Aorta*, makes it appear in the superficial Vessels of the *Face*, *Neck* and *Breast*, and so produces a *Blush*, which, when longer continued, and being very strong, is dispersed over the whole Surface of the Body. Hence the Observation of *Blushing at the Back of one's Hand*; and the Reasons why we *sigh* upon some Occasions, and *blush* upon others, depend upon the different Structure of the *Organs of Pulsation and Respiration*. A quick surprizing Pain of Mind acts upon the *Heart*, because the Motion of the Heart is altogether *involuntary*: So that a sudden *Constriction* takes place there immediately to increase the *Pulse*. Whereas we have some Power over the *Breathing*; we can stop or suspend it for a Time; and when we are thinking *intensely*, our Attention partly makes us hold our *Breath*, and hence ensues *Sighing* rather than *Blushing*. For the Pain being *slow*, quickens the *Pulse* more gradually: But if it continues long *both* Actions of *both* Organs are respectively produced; and hence it comes to pass, that upon *Anxiety*, *Concern*, and *earnest Expectation*, the

Pulse

and LONG LIFE. 155

Pulse is found quick and small, and the *Breath* thick and difficult, as Experience shews. The same Principles will account for the Effects of *Fear* and *Anger*, which make us change Colour, and look *red* or *pale*, as the Blood is accelerated or retarded in its Course. The sudden *Gusts* of these Passions being thus accounted for, when they become extreme, they drive about the *Blood* with such a Hurricane, that Nature is over-set, like a *Mill* by a *Flood*: So that what drove it only quicker round before, now intirely stops it, and renders the Countenance *pale* and *ghastly*. Sudden and great *Fear* or *Grief*, do so convulse the *Nervous System*, that sometimes they alter the Position of the Parts, and fix them in a new one. Thus the Hair stands on end in a *Fright*, and the whole *System* of the Nerves becomes so *rigid* and *stiff*, as to lose their *Elasticity*; whereby the *Animal Functions* are stopp'd at once; and *Fainting*, and sometimes *Death*, ensues.

§. 3. The *Chronical Passions*, like *Chronical Diseases*, wear out, waste and destroy the *Nervous System* gradually. Those *Nerves* which are necessary for

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considering, brooding over, and fixing such a Set of *Ideas* on the *Imagination*, being constantly employ'd, are worn out, broken and impaired. The *rest*, by Disuse, become resty and unactive, lifeless and destitute of a sufficient *Flux* of warm Blood and due Nourishment. And thus the whole *System* languishes and runs into Decay. Thus slow and long Grief, dark Melancholy, hopeless natural Love, and overweening Pride, (which is an outrageous Degree of *Self-love*) impair the Habit, by making the proper Seasons of necessary Food and due Labour be neglected, and thereby depriving the natural *Functions* of their wonted Supplies, overworking some Part of the *Nervous System*, and leaving the other to *rust*, and become resty for want of Use. Some of these Passions, as Love, Grief and Pride, when very intense and long indulg'd, terminate even in *Madness*. The Reason is, as I have been saying, because long and constant Habits, of *fixing* one Thing on the *Imagination*, begets a ready Disposition in the *Nerves* to produce again the same *Image*, till the Thought of it become *spontaneous* and natural, like breathing, or the Motion of the Heart, which the Machine

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performs without the Consent of the Will; and also a Disability or * *Tetanus* ensues on the other Parts, just as the *Faquiers* in *India*, fix one or both Hands by long holding them up, so as that they cannot bring them down again. There is a kind of *Melancholy*, which is called *Religious*, because 'tis conversant about Matters of *Religion*; although, often the Persons so distempered have little *solid Piety*. And this is merely a *Bodily Disease*, produced by an ill *Habit* or *Constitution*, wherein the *Nervous System* is broken and disordered, and the *Juices* are become *viscid* and *glewy*. This *Melancholy* arises generally from a *Disgust* or *Disrelish* of worldly *Amusements* and *Creature-Comforts*, whereupon the Mind turns to *Religion* for *Consolation* and *Peace*: But as the Person is in a very imperfect and unmortified State, not duly instructed and disciplined, and ignorant how to govern himself, there ensues *Fluctuation* and *Indocility*, *Scrupulosity*, *Horror* and *Despair*.

§. 4. Since the *Mind* resides, as has been said, in the common *Sensory*, like

* Immobility.

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a skilful Musician by a *well-tuned Instrument*; if the *Organ* be sound, duly tempered, and exactly adjusted, answering and corresponding with the Actions of the *Musician*, the *Musick* will be *distinct*, *agreeable* and *harmonious*. But if the *Organ* be spoiled and broken, neither duly *tuned*, nor justly fitted up, it will not answer the Intention of the *Musician*, nor yield any distinct Sound, or true *Harmony*. Those therefore who are *tender* and *valetudinary*, lead *sedentary* Lives, or indulge *contemplative* Studies, ought to avoid Excesses of the *Passions*, as they would Excesses in *high* Food, or *Spirituos* Liquors, if they have any Regard to Health, to the Preservation or Integrity of their *Intellectual* Faculties, or the bodily *Organs* of them. As the *Passions*, when *slow* and *continued*, *relax*, *unbend*, and *dissolve* the *Nervous* Fibres; so the sudden and violent ones *screw up*, *stretch* and *bend* them, whereby the Blood and Juices are hurried about with a violent *Impetuosity*, and all the *Secretions*, are either stopp'd by the Constrictions, Cramps and Convulsions begot by them, or are precipitated, crude and uncocted, and so beget, or, at least, dispose

pose toward *Inflammations*, *Fevers* or *Mortifications*. *Hatred*, for Example, *Anger* and *Malice*, are but Degrees of a *Frenzy*, and a *Frenzy* is one kind of a raging *Fever*. From all which 'tis plain, the *violent* and *sudden Passions*, are more dangerous to *Health*, than the *slow* and continued, as *acute Diseases* are more destructive than *chronical*.

§. 5. To shew yet farther, the Influence of the *Passions* on the *Animal Oeconomy*, let us consider the different Constitutions of Men. Those who have very *springy*, *lively*, and *elastick Fibres*, have the *quickest Sensations*, a weaker *Impulse* producing a stronger *Sensation* in them. These generally excel in the *Animal Faculty* of *Imagination*. Hence the Poet,

—— * *Genus irritabile Vatum.*

And therefore, your Men of *Imagination* are generally given to *sensual Pleasure*, because the Objects of *Sense* yield them a more delicate *Touch*, and a livelier *Sensation*, than they do *others*. But if they happen to live so long (which is

* Poets are soon provok'd.

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hardly possible) in the *Decline* of Life they pay dearly for the greater bodily Pleasures they enjoyed in the Youthful Days of their *Vanity*. Those of *rigid, stiff* and *unyielding* Fibres, have *less vivid Sensations*, because it requires a greater Degree of *Force* to overcome a greater *Resistance*. Those excel most in the *Labours* of the *Understanding*, or the *Intellectual* Faculties, retain their *Impressions* longest, and pursue them farthest; and are most susceptible of the slow and lasting *Passions*, which secretly consume them as *chronical* Diseases do. And *lastly*, Those whose *Organs* of *Sensation* are (if I may speak so) *un-elastic*, or intirely *callous*, *resty* for want of *Exercise*, or any way *obstructed*, or naturally *ill-formed*, as they have scarce any *Passions* at all, or any lively *Sensations*, and are incapable of lasting *Impressions*; so they enjoy the *firmest* Health, and are subject to the fewest *Diseases*: such are *Ideots*, *Peasants* and *Mechanicks*, and all those we call *Indolent* People.

§. 6. We have before shewn, that weak *Limbs*, and all the bodily *Organs*, may be strengthened and repaired

paired by proper *Exercise*. And there is no doubt to be made, but the *Organs of Sensation*, and those the Mind uses in its *intellectual Operations*, may be likewise *improved, strengthened and perfected* by constant Use, and proper *Application*. And if by Excesses, an original bad *Conformation*, or any Accident, these *Organs* come to be spoiled, or by the bad State of the *Juices*, they be weakned in their *Functions*; then the *Medicinal and Chirurgical Arts* may take place, and come in play. But if the *Passions* be *raging and tumultuous*, and constantly fuelled, nothing less than *He*, who has the *Hearts of Men in His Hands*, and forms them as a *Potter does his Clay*, who stills the *Raging of the Seas*, and calms the *Tempests of the Air*, can settle and quiet such tumultuous, overbearing *Hurricanes* in the Mind, and *Animal Oeconomy*. Without such a *Miracle*, since the *Soul* and *Body* act mutually upon one another, and the *Tabernacle of Clay* is the weakest Part of the *Compound*, it must at last be overborn and thrown down.

§. 7. In such a wretched Case I know no Remedy, but to drown all other *Passions* in that *Spiritual one* of the

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Love

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Love of God. The Reasonableness and Justness of which Proceeding, and (what may seem a *Paradox*) the Usefulness of it to Health, and its benign Influence on the *Animal Oeconomy*, I shall endeavour to *demonstrate*. *Spiritual Love* is that Principle *analogous* to *Attraction*, spoken of in *Prop. IV.* 'Tis the *Tendency, Byass* or *Impulse* of the Minds of Men and other Spirits, toward the most *amiable* Objects, communicated by their *Creator* in their *original Formation*, by virtue of which, they constantly *tend, press* and *urge* to unite (and, if Obstacles were removed, would unite) with one another, and be all united with their *Origin*. This *Principle* indeed, in this *lapsed Estate* of Man (where 'tis overlaid and buried under *Rubbish*, involved in so many other *Attractions*, and stifled with such *Letts* and *Contrarieties*, that its Action is felt but just enough to know that it is, and wants to be awaked with Labour, and excited with *Violence*, as the Scripture mentions, the *taking the Kingdom of Heaven by Force*) on its first *Developement* and *Expansion*, and in its first Exercises, may be called a *Spiritual Passion*, as 'tis the first Motions, Endeavours and *Velleities* toward the Love
of

of God or Charity. But in its Advances, and final Perfection and Consummation, it discovers itself to be a Faculty, Quality, or inherent Power in the Soul, whereby it will act without Solicitation, Motive or Direction. As a Stone in a Wall, fastned with Mortar, compressed by surrounding Stones, and involved in a Million of other Attractions, cannot fall to the Earth, nor sensibly exert its natural Gravity, no, not so much as to discover there is such a Principle in it; just so, the intelligent Soul, in this her lapsed Estate, being drowned in Sense, chained and fettered by Ignorance and Perverseness, drawn and hurried away by the Devil, the World and the Flesh, is disabled from exerting this inherent and innate Principle of Re-union, and wants sufficient Light on the Understanding, and a right Turn of the Will, to be put in a Capacity of exercising it. But in its proper Vacuity, and being freed from these Letts and Impediments, it would mount towards its Original, like an Eagle toward the Sun. Amiability, Pulchritude or Beauty, is as much the peculiar and proper Object of this Affection of the Mind, as Light, or a luminous Body is of Vision; for Deformity,

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as such, can never be loved. And *Beauty* or *Perfection*, is, in Reality and just Philosophy, nothing but *Analogy*, *Order*, or just *Proportion*. From hence it necessarily follows, that in the Scale of Beings, all Objects ought to be loved in proportion to their Degree of *Beauty*, *Symmetry* or *Perfection*. And consequently, the highest *Perfection* ought to be loved with the highest Degree of *Love*, and the several subordinate Degrees of *Perfection*, with proportionate Degrees of this *Affection* of the Mind. And since *Finite*, when compared with *Infinite*, vanishes quite, or becomes *nothing*; it follows necessarily (since there is, and can be, but *one* Object that is *Infinite*, *Good* and *Perfect*, and all others are but *Created*, and *Finite Goods*; that is, in *Comparison* they are nothing) that, according to the *eternal* and *immutable Laws* of *Analogy*, the *One supreme Good*, endued with *Infinite Perfection*, ought to be loved with a *Love* infinitely superior to our *Affections* for *other Things*, or (which is the same Thing in other Words) that, in *Comparison*, our *Love* to the Author of our Being, ought to be *infinite*; and that to ourselves and other Objects, as
being

being *finite* Creatures, none at all. This is the true *Philosophy* of this Matter, and as much a *Demonstration*, as any thing in *Numbers* or *Geometry* possibly can be; however it may be received by Men of *Self-Love* and *Carnal Minds*.

§. 8. Yet I would not be so understood, as if I condemned all *subordinate* and duly *proportioned* *Regards* for *Ourselves* and other *Objects* about us, that are necessary for our Support and Accommodation in our present State. No! There is a *just* and *laudable* Self-love, as well as a *false* and *vitious* one. If we love *Ourselves*, as we love our *Neighbours*; if we love *Ourselves* as God loves us; if we love *Ourselves* as we deserve to be loved by the *infinitely perfect* Being; if we love *Ourselves* with a justly proportioned, and duly *subordinate* Love: that is, if we love *Ourselves* with a *Finite*, and *Him* with an *Infinite* Love, or a Love increasing, and going on in *infinitum*, that has neither Limits nor End: Then we love *Ourselves* as we ought; this *Self-love* is just and laudable, and has its due and proper Degree of *Reality* and *Existence*, in the Nature of Things. *Perfection*, or
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an Object perfect in its kind, or one that we think so, is the proper Object of our *Love*. And as in due *Analogy*, *Proportion* and *Order*, *infinite* Perfection requires *infinite* Love, or the highest Degree of *Love* we can give it; so all other *Objects* are to be loved with a Degree of *Love* proportioned to their *Perfection*. And since a Being of *infinite* Perfection can be but *one*, and all other Beings can have but a *finite* Degree of *Perfection*, we must love them but with a *finite* Love; or, the *Proportion* of our Love to Him and them, ought to be, as *Infinite* is to *Finite*. That is, comparatively we ought to love them with *no Love* at all; but absolutely (or without comparing *created* Things, to the *infinitely perfect Being*) with their proper Degree of *finite* Love, according to their *Rank* in the *Scale* of Beings.

Coroll. Tho' from the Nature of the *Demonstration* I have given, that God is to be loved, it is evident he is to be loved *infinitely* for *Himself*, and his own *infinite Perfections*, abstracting from all other Considerations, even that of our own *Happiness*, in the Enjoyment of, or
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Union with Him; Yet it is certain, these *Two*, our *Love to God*, and our *own Happiness*, cannot be actually separated. *Pleasure* consists in this, That the *Soul* and *Body* are affected, by the *Objects* that produce it, with an *harmonious* and *commensurate* Action or Touch; for in their *original* and *uncorrupted* Make, as they came from the Hands of their *Creator*, both separately, and *each* by themselves, and also in their *Actions* on one another, all was *Harmony* and *Concord*. As to the *Body*; as nothing but a *musical* or *commensurate* Touch, can affect it with *Pleasure*, and as a *discordant* and *uncommensurate* Stroke creates a *Jarring*, *Grating* and *Obstruction*, which is *Pain* (this is evident in *Hearing*, where the agreeable Sensations of sonorous Bodies, are altogether *harmonious*; Sir *Isaac Newton*, has made it plain in *Vision*; And, no Doubt, it is so in all the *other Senses*) So likewise as to the *Soul*; *Truth*, and *Beauty* or *Perfection*, are the only *Objects* that give *Pleasure* to the *Understanding* and *Will*, its two *Cardinal* Faculties. And these are nothing but *Harmony*, or just *Proportion* in the respective *Objects*. And we have shewn,
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that the Union of the Soul and Body (or *Life*, the so much coveted Good) consists in a kind of *Harmonia præstabilita* (though a kind very different from Mr. *Leibnitz's*) whereby an *harmonious Touch* or *Action* upon either of them, produces a *pleasurable Sensation*. Now as *Beauty* or *Perfection* gives Pleasure to both the Parts of the Compound, and as nothing but the highest Degree of *Perfection* or *Beauty*, can give the greatest Pleasure, *i. e.* Happiness; it necessarily follows, That *Spiritual Love*, or the *Love of God*, as it is the only Mean of *uniting* us with the One Being, who is *infinitely perfect*, is also the only Mean of making us *infinitely happy*.

§. 9. As to the *second* Thing proposed concerning *Spiritual Love*, however foreign these *metaphysical Speculations* concerning it may seem, to a Discourse about *Health* and *Long Life*; yet, if steadily believed, and their natural Consequences reduced to *Practice*, they would not only become the most effectual Means to prevent *Diseases*, but also, the most of any Thing, promote *Health* and *Long Life*. For, *first*, Were our *Love* proportioned to the Order and
Analogy

Analogy of Things; were our Love to the Supreme Good infinite, and that to others, in Comparison, none at all; we should have but one single View in all our Thoughts, Words and Actions, viz. The Promoting and Raising that supreme Love, to its due Degree and Elevation; whereby all Anxiety, carking Care, and Solitude about other Things (the Source of all our Miseries, and of many Bodily Diseases) would be cut off all at once. Secondly, Since Love always begets Resemblance of Manners; since the Object of this Love is infinitely perfect; if we loved him in the supreme Degree, we should infinitely endeavour to resemble Him: whereby Hatred and Malice, Luxury and Lewdness, Laziness, and all the other Seeds of Bodily Diseases, would be altogether destroyed. Thirdly, Since Spiritual Love is not only the noblest, but also the most joyful and pleasant Affection of the Mind; since the Object of our supreme Love (as an inspired Poet expresses it) has Fulness of Joy in his Presence, and Rivers of Pleasures at his Right Hand for ever; and since our Joy and Happiness will always rise in proportion to our Love; the placing our supreme Love on the supreme Good,

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would

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would render us *infinitely joyful, serene, calm and pleased*; than which, certainly, no Man can imagine a more effectual *Mean of Health and Long Life*.

RULES of Health and Long Life, drawn from the Head.

Of the PASSIONS.

1. **T**HE *Passions* have a greater Influence on *Health*, than most People are aware of.

2. All *violent and sudden* Passions, dispose to, or actually throw People into *acute* Diseases; and sometimes the *most violent* of them bring on *sudden* Death.

3. The *slow and lasting* Passions, bring on *chronical* Diseases; as we see in Grief, and languishing hopeless Love.

4. Therefore the *sudden and acute* Passions are *more dangerous* than the *slow or chronical*.

5. Men

5. Men of lively Imaginations and great *Vivacity*, are more liable to the *sudden* and *violent* Passions and their Effects.

6. *Thoughtful* People, and those of good Understanding, suffer most by the *slow*, and *secretly consuming* Passions.

7. The *Indolent* and the Thoughtless, suffer *least* from the Passions : The *Stupid* and *Idiots* *not at all*.

8. The *Diseases* brought on by the Passions, may be *cured* by *Medicine*, as well as those proceeding from other Causes, when once the Passions themselves cease, or are quieted. But the *preventing* or *calming* the Passions themselves, is the Business, not of *Physick*, but of *Virtue* and *Religion*.

9. The *Love of God*, as it is the sovereign Remedy of all *Miseries*, so, in particular, it effectually *prevents* all the *Bodily Disorders* the Passions introduce, by keeping the Passions themselves within due Bounds ; and by the unspeakable Joy, and perfect Calm, Serenity and Tran-

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quility it gives the Mind, becomes the most *powerful* of all the *Means* of *Health* and *Long Life*.



C H A P. VII.

Containing those OBSERVATIONS, *that came not naturally under the foregoing Heads.*

§. 1. **M**ENTION having been so often made of *Chronical*, and sometimes of *Acute* Distempers, it may be convenient here, to suggest to the Readers, as clear an Account of their Nature and Difference, as I possibly can. *Acute* Distempers, then, are understood, Such as within some short *limited Time* have their Periods, either of a perfect *Crise*, and subsequent Recovery, or of putting an End to the *Distemper* and *Life* both together; and are therefore called
quick,

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quick, sharp or acute Distempers, whose Symptoms are more violent, their Duration shorter, and their Periods more *quick*, either of *sudden Death*, or a glorious *Victory* over the Disease. These are generally limited within *Forty Days*. And those that run out longer, turn into *chronical* Distempers, whose Periods are more slow, their *Symptoms* less severe, and their *Duration* longer. They too (if new Fuel were not administered to them) would, by the Course of *Nature*, and the *Animal Oeconomy*, have their *Periods*, and terminate at the last. The *Viscidities* of the *Juices*, and the *Flaccidity* of the *Fibres*, would, in a great measure, and to some very tolerable Degree, by *proper Remedies*, and a due *Regimen*, be removed, and the Party recover in *these*, as well as *acute Cases*. But this requiring long Time, much Care, and great Caution, unwearied Patience and Perseverance, and so long a Course of *Self-denial*, as few People are willing to undergo, it is become the *Reproach* of *Physick* and *Physicians*, that *acute Cases* cure themselves (or, rather, *Nature* cures them) and *chronical Cases* are never cured. But both the Branches of the Reflexion
are

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are equally false. In the First, *Art* and *Care*, judiciously applied, will always *alleviate* the *Symptoms* and *Suffering*, will help on Nature to the *Relief* she points out, and quicken the *Crise*, which it will constantly bring about, if the *Distemper* is not too strong for the *Constitution*. And even then it will *mitigate* the *Pain*, and lay the *Patient* gently and easily down. But in the *last Case*, if due *Care* be had, to follow timely the Advice of an *honest* and *experienc'd Physician*, a *Period* certainly may be brought about to most *chronical Distempers*, where the great *Viscera* are not spoiled and destroyed. The *Failing* is in the *Patient* himself, who will not, or cannot, *deny himself* for a Time sufficient to bring about the *Cure*. Some *chronical Distempers* indeed are such, either by having gone *too far*, or by being *Hereditary*, and interwoven with the *Principles* of Life, as never to be totally overcome. And then 'tis a Piece of *great Wisdom*, to know how far their *Constitution* will go, and sit down contented with that *Measure of Health* their *original Frame* will admit of. But of this I am morally certain, If the *Rules* and *Cautions* laid down in this *Treatise*,
be

be *carefully, steadily, and constantly* observed, few *chronical* Distempers but will receive such *Relief* and *Alleviation* by them, as to make Life *tolerably easy*, and free from *grievous Sufferings*: And, in the mentioned *Case*, that is all that is left for *Art* to do. But in other *chronical* Distempers, taken in *due Time*, where the *Viscera* are not quite spoiled, they would infallibly bring about a *final Period*, and perfect Cure. The most certain distinguishing Mark of an *Acute* Distemper, is, To have a *quick Pulse*; that of a *Chronical*, To have a *slow* one. The first will exhaust the *Fluids*, and wear out the *Solids* in a *short Time*; whereas the *last* will require a longer Time to produce the same Effect. Some *chronical* Distempers, especially towards the *last* and *fatal Period*, turn *acute*. And some *acute* ones terminate in *chronical* Distempers. But this *Mark* will not only keep them distinct; but also point out, when *acute* Distempers have *chronical* Remissions or Intermissions, and when *chronical* Distempers have *acute* Fits or Paroxysms.

§. 2. Some Persons who are extremely healthy and sound during their

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their *younger* Days, about, or soon after the *Meridian* of Life (that is, about Thirty-five or Thirty-six, according to the Observation of an *inspired King*) fall into *chronical* Distempers, which cut them off in few Years, or make them miserable all the rest of their Lives. Thus *Consumptions* prove mortal to some about that Time. Thus *Stone* and *Gravel*, *Gout* and *Rheumatism*, *Scurvy* and *Dropſy*, *King's-Evil* and *Skin-Diſeaſes*, either make their *firſt* Appearances, or ſhew themſelves in their true *Type* about this Time of Life. The Reason is, While the *Juices* are ſweet, ſufficiently thin and fluid, but eſpecially while the *ſolid* Organs, the *Membranes* and *Fibres*, are yet but *unſolding*, *ſtretching* and *drawing* out to their full *Dimensions*, any *Acrimony*, Sharpneſs, or *corroding* Humour, can affect them no other Way, than by making them *vibrate*, and ſo extend themſelves farther and farther. For as Pain, ſo theſe ſharp Salts, by their *Twitching* and *Irritation* on the tender *Fibres*, make them only contract, and ſo draw at both *Extremities*, and thereby unfold and extend themſelves farther; So while the *original Foldings* and *Complications* of the

the *Solids* are not yet quite extended, this *Irritation* serves only to draw them out, and does not hurt them, till they are arrived at their full *Extent*, which generally happens about Five-and-twenty. It takes a *due* Time after that for these *sharp* Humours to *exalt* themselves to their utmost *Acrimony*, to corrupt and putrify the Juices, and also some more Time to *wear* out, to obstruct and break the great *Organs*, and their smaller *capillary* Vessels. The Sum of all which, brings the *Periods* of the great Attacks of these Distempers to the mentioned *Time* of *Life*. Those in whom the *original Taint* is deeper and more radicated, and the natural Constitution *weaker*, suffer under these Attacks *sooner*. And those in whom it is *slighter* and more superficial, and whose Complexion is *stronger* and more *hardy*, hold out *longer*. But the Generality suffer first, *eminently*, about the *Meridian* of *Life*. Hence the common Observation of those that die of a genuine *Consumption*, that they begin to feel it first before *Thirty-six*.

§. 4. There is no *chronical* Distemper whatsoever, more *universal*, more ob-
A a *stinate*,

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stinate, and more *fatal* in *Brittain*, than the *Scurvy*, taken in its general Extent. Scarce any one *chronical* Distemper but owes its *Origin* to a *Scorbutick Cachexie*, or is so complicated with it, that it furnishes its most cruel and most obstinate *Symptoms*. To it we owe all the *Dropsies* that happen after the *Meridian* of Life, all *Diabetes*, *Asthma's*, *Consumptions* of several kinds, many sorts of *Colicks* and *Diarrhea's*, some kinds of *Gouts* and *Rheumatisms*, all *Palsies*, various kinds of *Ulcers*, and, possibly, the *Cancer* itself, and most *cutaneous* Foulnesses, weakly *Constitutions*, and bad *Digestions*, *Vapours*, *Melancholy*, and almost all *nervous* Distempers whatsoever. And what a plentiful *Source* of *Miseries* these last are, the *Afflicted* best can tell. And scarce any one *chronical* Distemper whatsoever, but has some Degree of this *Evil* faithfully attending it. The Reason why the *Scurvy* is so * *endemick* a Distemper, and so fruitful of *Miseries*, is, that it is produced by *Causes* mostly special and particular to this *Island*; to wit, The indulging so much in *animal Food*, and *strong* fermenting *Liquors*, in *contemplative* Studies, and *sedentary* Professions

* Peculiar to this Country.

essions and Employments (and thence the Want of due *Labour* and *Exercise*) together with the *nitrous* Moisture of an *Island*, and the *Inconstancy* and *Inclemency* of the Seasons thence arising. I have had many Occasions to shew, how such *Causes* must necessarily and naturally produce such *Effects*. I will here only touch the Matter slightly, to point out the *Connexion*. *Animal Foods* and *strong Liquors* to *Excess*, and with Continuance, must load and charge the *Fluids* with their *Salts*. Want of due *Exercise* must suffer these to unite in *Clusters*, and increase their *Bulk* in the small Vessels. Their *larger Bulk*, and greater *Acrimony*, thence arising, must increase the *Viscidities* of the *Fluids*, by breaking the *Blood Globules*, and so *coagulating* the Mass, and at last obstruct the *finer Pipes*, and all the smaller *Glands*: Whereby the *Tone* of all the *elastick* Fibres must be interrupted and broken, and their *Vibrations* stopt at every obstructed *Gland* and *capillary Vessel*, and an universal *Disorder* produced in the whole *animal Oeconomy*. And this Disorder will operate, and shew it self in *Symptoms* special and particular, according to the special and particular *Make* and

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Conformation of the Parts, the Weakness or the Strength of the *Organs*, the particular Mismanagements, and precise State of the *Air* the Party lives in. And the *Detail* of these general Causes applied to particular Persons, must produce the *respective* Diseases mentioned. In a Word, The *Scurvy* is a kind of *Catholick* Distemper here in *Britain*, arising from *constant* and *general* Causes, from the *Customs* of the People, and from the *Nature* of the *Climate*, which renders the serous Part of the Blood too *thick* and *gleny*, breaks and divides the Union of the *globulous* Parts, obstructs the *small* Vessels, and destroys the *Springiness* and *Elasticity* of the *Fibres*. So that most *chronical* Distempers, can be little else, but *Branches* and *Cions* from this *Root*, which (like *Pandora's* Box) is so fruitful of Variety of Mischiefs. And its arising from the *Climate* and *Customs* of the People, is the Reason why *chronical* Distempers are so frequent in *Britain*, to what they are in *warmer* *Climates* (which, by a *freer* *Perspiration* and *lighter* *Diet*, not only prevent those *Diseases* in their own *Inhabitants*, but *universally* cure those of our *Island* who are afflicted with them,
if

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if they flee to those *Regions* any *reasonable Time* before Nature be quite worn out). For though the Inhabitants of *Britain*, live, for the most part, as *long*, or rather *longer*, than those of *warmer Climates*; yet scarce any one, especially those of the *better Sort*, but becomes *crazy*, and suffers under some *chronical Distemper* or other, before they arrive at *old Age*. The same Reason is to be assigned for the Frequency of *Self-murders* here, in *England* especially, beyond any other Country. For few have *Grace* and *Resignation* enough, to suffer patiently the lasting Pains of a *chronical Distemper*, or the yet more *torturing* and *crucifying Anguish* of a perpetual *Dispiritedness*; though I have observed *generally*, and have good Reason to conclude *universally*, That all *Self-murderers* are first *distracted* and *distempered* in their *intellectual Faculties*. Notwithstanding the *Diffusiveness* and *Universality* of this Disease, so that scarce a single Individual of the *better Sort* is altogether free from it; yet I never once in my Life, saw it *totally extirpated* in those who had it to any Degree, so as to be intirely free from it all the rest of their Lives after; but that it still appeared,

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peared, and sprang up again in some *Symptom* or other, and at last brought forth that *grand one*, which put a *final Period* to all their Sufferings. One good Reason for this is, That it requires a *Regimen* and *Conduct* so intirely *contrary* and *opposite* to the *natural Habits* and *Customs*, and the universal *Bent* and *Appetites* of the Inhabitants of this *Island*, that it becomes a kind of perpetual *Self-denial* to them ; which the *British Nation*, in general, does not mightily admire. Another Reason is, That *fine Folks* use their *Physicians*, as they do their *Laundresses*, send their Linen to them to be cleaned, in order only to be dirtied again. Nothing less than a very moderate Use of *animal Food*, and that of the Kind which abounds least in *urinous Salts* (as most certainly the young and the lighter-coloured do) and a more moderate use of *Spirituous Liquors*, *due Labour* and *Exercise*, and a careful guarding against the *Inconstancy* and *Inclemency* of the *Seasons*, can keep this *Hydra* under. And nothing else than a *total Abstinence* from *animal Foods*, and *strong fermented Liquors*, can totally extirpate it. And that, too, must be begun

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gun early; before, or soon after the *Meridian* of Life; or else there will remain too little *Oil* in the *Lamp*, the *Spirits* will sink too far, ever to be recovered again; and the remaining Part of Life, will be too short for so total a Change as must be made. So that those who suffer greatly under this *British* Distemper, must be contented to *bear* and *forbear* a little, and must expect no greater *Degree of Health*, than their *Time of Life*, the *Nature* of their Disease, and the State of their *Constitution* will admit of. But still a great Moderation in *animal Foods*, and *spirituous and fermented Liquors*, *due Exercise*, and a Care to fence against the *Injuries* of the Weather, will make Life tolerably easy; especially if some gentle domestick *Purges* be interspersed. The *Seeds* and young *Sprouts* of Vegetables, have scarce any gross, *fixed*, or *essential Salts* at all in them. This is not only evident from the Reasons formerly given (because they are young, or the Nourishment appointed by Nature for young Vegetables; for the *Earth* is only a proper *Nest* or *Matrix* for them; and the *Sun's* Heat serves them instead

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stead of *Incubation*) but upon * *Trial* and *Examination*, they yield none, being too light and thin to *calcine* and *incinerate*, and the *Salts* too *volatile* (and consequently, small and fit to pass by *Perspiration*, and thereby can be no way injurious to *Human Constitutions*) to endure the *Fire*; which full-grown *Plants*, their *Stalks* and *Wood*, readily do. And in *unfermented Liquors*, the *Salts* are so *enveloped*, that they cannot unite to form a *Spirit*, and are so *sheathed*, by particular *Coats* of the *Materials* of the *Vegetable*, that they can scarce do any harm (except when they exceedingly abound) to *animal Bodies*. Hence it comes to pass, that a *vegetable Diet* for a few *Weeks* or *Months*, together with drinking *Water* or *unfermented Liquors* (such as *Tea*, *Coffee*, *Barley-Water*, *Liquorice-Water*, *Teas* made of *Oranges*, or other *Seeds* and *Plants*) will fasten the *Teeth* when dropping out, from a *Consumption* of the *Gums* by *scorbutick Salts*, cure any *cutaneous Foulnesses* or *Eruptions*, and even any spreading *Ulcer*, if it is not *Scrofulous*, when no

* See *Lowth. Abridg. of Phil. Transf. v. 2. p. 661.*

Medicine on the Face of the Earth will touch it. Hence the grand *Maxim* in the Cure of all *Ulcers* is, by *Diet* to bring them to the State of a *Wound*, and then they will cure of themselves. And, as I have elsewhere observed, there is scarce a *thin, consumptive, hysteric, or hypochondriack*, and weakly Constitution in *England*, which has not for its Parent, a latent or manifest *scorbutick Cachexy*, excepting that which arises from a *Scrofula*. From the whole we may gather, how much a *proper Regimen of Diet, and due Exercise*, with the other *Helps and Remedies* already mentioned in this *Treatise*, is able to do in most *British chronical Distempers*.

§. 4. Having had so often Occasion to speak of weak and relaxed Nerves, it will not be amiss to *suggest*, some of the outward and most sensible *Signs and Characters*, whereby it may be manifest, whether *one's self*, or any *particular Person* he is concerned for, be of this *Make and Constitution*, before some *chronical Distemper*, or other dismal *Symptom* has made it plain; in order to prevent *these* as far as possible. To which Purpose we must observe, that the *Nerves* are

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Bundles

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Bundles of *solid, springy, and elastick* Threads or *Filaments* (like twisted Cat-Guts or Hairs) whose one *Extremity* is terminated at the *common Sensory* in the *Brain*, where the *Soul* is supposed to reside ; the *other* is interwoven into every Point of the *Scarf-skin*, the *Membranes*, the *Coats* of the *Vessels*, the *Muscles* and the other *sensible Solids* of the *Body*, in order to convey the *Motions, Actions, Vibrations, or Impulses* of outward *Objects* to the *Soul*. These *Threads* or *Filaments* are highly *elastick* or *springy*, as we may see from their hardened *Substances*, such as *Whalebone, Ivory, Horn, and Cartilages*, which are more eminently *so*, than any other *Bodies* known. Some *Persons* have their *Fibres* very *quick*, readily *vibrating*, highly *springy* and *elastick*, so as to *tremble* and *shake* violently, by the least *Impulse*. Others have more *rigid, firm, and stretched Fibres*, which yield not but to strong *Impressions*, and move slowly, but move for a long *Time*. *Lastly*, There are those who have *weak, loose, slender, and relaxed Fibres*, which, though easily moved, and yielding to the weakest *Impulse*, yet communicate only *imperfect, languid and faint Impressions and Vibrations* to the

the *Soul*, and have all their other *Animal Functions* of the same *languishing Nature*. And 'tis of these last, I have been all along speaking. And we may readily discover them, by these outward *Characters* and *Signs*. 1. Those who have naturally *soft, thin, small, and short Hair*, are of a *loose, flabby, and relaxed State of Nerves*. For the *Hair* seems to be some of the *fleshy Fibres*, only lengthen'd outwards and harden'd. At least, like the *Fibres*, they consist of a great many lesser *Filaments* contained in a common *Membrane*, are *solid, transparent* and *elastick*: And as these *Hairs* are in *Strength* and *Bulk*, so generally the *Fibres* of the *Body* are. 2. Those of the *fairest Hair*, are of the *loosest Fibres* (other Things being equal) because the *Fairest* are more *rare, porous, and fungous*; And because *Bodies* of the *lighter Colours*, consist of *smaller Parts*, than those of the more *flaming Colours*; as has been formerly observ'd. 3. Those of large, or (as they are called) *mastiff Muscles*, and of *big Bones*, are generally of a firmer *State of Nerves*, than those of *little Muscles* and *Bones*: Because the *Muscles* and *Bones* being *similar* to their *Fibres*, as is highly

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probable, and these being *bigger*, and consequently stronger, so must those be: And, on the contrary, 4. *Soft, yielding, pappy Flesh*, is a sure Symptom of *loose Fibres*; whereas *hard, firm, and unyielding Muscles*, are the constant Sign. of *firm Fibres*. 5. A *white, fair, blanch'd, or ashen-coloured Complexion or Skin*, constantly indicates a *weaker* and more *relaxed State of Fibres*, than a *ruddy, fresh, dark sallow, or black Hue*; for Reasons already given. 6. A *fat corpulent and flegmatick Constitution*, is always attended with *loose, flabby, and relaxed Fibres*, by their being dissolved and *oversoaked in Moisture and Humidity*. And, on the contrary, those of a *dry, clean, and firm Make*, have *strong, firm, and tense Fibres*. 7. Those who are subject to *Evacuations* of any kind, in any Degree greater than what is natural; and those who by any *Accident*, have suffered long by any *preternatural Evacuation* whatsoever, are, or become of *loose, relaxed Fibres and Nerves*. Thus those who frequently run into *Purging, or Floods of pale Water, flow at the Mouth or Nose, or melt into profuse Sweats*; those who any Way have lost much *Blood*, have had a *Diarrhæa*, have recovered of

a *Fever*, and those of the *Sex* who have *purified* longer or more than is usual; all of these are *originally*, or become *accidentally*, of *weak* and *relaxed Nerves* and *Fibres*. 8. *Lastly*, Those who are of a *cold Constitution*, are apt to run into *Coldnesses* on their *Extremities*, or ready to catch *Cold*, are also of *weak* and *loose Fibres* and *Nerves*: because these are Signs of a *slow* and *interrupted Circulation* and *Perspiration*; which manifests a *weak Spring* in the *Fibres* of the *Coats* of the *Vessels*, the *Fibres* of the *Muscles*, and a *Weakness* of the *Spring* of the *Scales* of the *Scarf-skin*.

§. 5. On this Occasion of rehearsing the Signs of weak Nerves, I cannot omit *apprising* those of the breeding Part of the *Sex*, and those who are concerned in them, of their Readiness of *Miscarrying*, unless duly tended and managed, especially those of them of *tender* and *weak Nerves*, or of too *delicate a Constitution*. The Signs I have now laid down, will always make it evident, if any *particular Person* is so or not. And if upon *Examination* they be found to be *such*, they will be apt, upon the slightest Occasion, to run into frequent
Mis-

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Miscarriages; whereby a great Part of their *Posterity* will be destroyed, and they themselves exposed to *Dropsies* or *Consumptions*, or (which is worse than either) perpetual *Lowness* of *Spirits*, *Vapours* and other *Hysterick Disorders*. And by this Misfortune alone, a considerable Part of the *better Sort* here in *England*, perish and are lost. *Nature* has formed the Generality of the Sex, of a *soft, slender, and delicate Make*. Want of due *Exercise*, a full *Table*, indiscreet *Nurses*, overfond *Mothers*, and *Hereditary Sharpnesses*, make them much more so. And if by *Neglect* or *Accident*, they once begin to *miscarry*, every *first Miscarriage* paves the *Way* for a *second*, and a *third*, and so on, till the poor, pretty *Creature*, has neither *Blood* nor *Spirits*, *Appetite* nor *Digestion* left. For one *Miscarriage* weakens the *Constitution*, breaks and tears the *nervous System* more, than two *mature Births*. If ever this is to be secured or prevented effectually, 'tis to be done, at least attempted, in the *first Instance*, if possible, at least as soon as may be, before a total *Relaxation* and *Dissolution* of the *nervous System* is brought on. The *Giddiness*, *Romping* and *Gadding* about of the young *Creature*

ture herself, is often the Cause of her *Miscarriage*. But oftner the *Forwardness* and *Indiscretion* of *Surgeons* and *Midwives*, by *bleeding* on every little threatening *Symptom*, without considering the *Constitution*. *Bleeding* may do well enough in *sanguine*, *robust*, and *plethorick* *Constitutions*: But 'tis *Death* and certain *Ruin* to those of *slender* and weak *Nerves*, and the surest *Way* to cause the *Miscarriage* 'tis designed to prevent, by *relaxing* the *Nervous* *Fibres*; which *Bleeding* does as certainly, as it lessens the *Quantity* of the *Blood*. The most effectual *Method* I have ever found to prevent such *Misfortunes*, is, To order those in such *Circumstances*, to drink plentifully *Bristol Water*, with a very little *red Wine*, for their *constant Drink*; to lay the *Plaister ad Herniam*, with *Oil of Cinnamon*, and *London Laudanum*, in a due *Proportion*, to their *Reins*; to keep them to a *low*, *light*, *easily digested Diet*, especially of the *farinaceous Vegetables*, and *milk Meats*; to strengthen their *Bowels*, with *Diascordium* and *toasted Rhubarb*, if they become too *slippery*; to *air* them once or twice a *Day*, in a *Couch* or *Chair*, and to keep them *cheerful*, and in good *Humour*, as much as
may

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may be. This *Method* will scarce ever fail, unless a latent *Scrofala*, or some other *Hereditary Sharpnesses* in their *Juices*, destroy the *Birth*.

§. 6. The *Tender*, *Sickly*, and those of *weak Nerves*, ought to have a *Regard* in the *Conduct* of their *Health*, to the different *Seasons* of the *Year*. I have elsewhere * observed, that such *Constitutions* begin to *sink*, *droop* and *languish*, about *Christmas* or *Midwinter*, go on from *worse* to *worse* till the *Spring* is over, get up a little, as the *Sun* grows *higher* and *stronger*, arrive at their *Meridian Altitude* of *Health* and *Strength* about *Midsummer*, and hold it out so long as the *Sun* warms them, or the *Strength* they have acquired lasts. Those who have very *weak Nerves*, fail sooner, even about the *Autumnal Equinox*: But they get up sooner, because their weaker *Nerves* make less *Resistance*. The *Sun* now *ferments*, *rarifies*, and *exalts* their *viscid Juices*: So that the *Circulation* is better performed, more *full*, *free* and *universal*. The *Perspiration* is also thereby much *increased* and *pro-*

* Essay on the Gout.

moted: And the Load being drawn off, by the Force of the *Sun's* Heat; their *Appetite* is sharpen'd, and their *Digestion* mended: To which the *serene*, *warm* and *clear Air*, and the greater Liberty of *Exercise* and *Business* contributes. I should advise such therefore, *religiously* to follow the *Indications* of *Nature*, and to take these *Benefits* it offers *then*, as a certain *Sign* of their being *best* and *fittest* for them. After *Christmas*, and in the Beginning of the *Spring*, *Milk*, *Eggs*, and *Spring-Herbs*, as *Asparagus*, *Spinach*, and *Sprouts* come in *first*: Of which I advise them, to make the greatest Part of their *Diet* then. As the *Spring* advances, *Lamb* and *Veal*, *Green Pease* and *Sallading* abound. After the *vernal Equinox*, *Chicken* and *Rabbit*, young *Turkies*, and *early Fruit* come in *Season*. About *Midsummer*, *Mutton* and *Partridge*, *Colliflower* and *Artich oak* may be had. And *Autumn* brings in *Beef* and *Venison*, *Turnip* and *Carrot*. And it will be found, the *coactive Powers* of weak Persons, and those of *relaxed Nerves*, *rise* and *fortify* gradually, as these *stronger Foods* come in *Season*. By *Season*, I mean not, those *earlier Days*, that *Luxury* in the

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Buyers,

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Buyers, and *Avarice* in the *Sellers* about *London*, have forced the several kinds of *Vegetables*, and *Animals* in. But by *Season* I mean, that *Time* of the *Year*, in which by *Nature*, common *Culture*, and the mere *Operation* of the *Sun* and *Climate*, they are in most *Plenty* and *Perfection* in this *Country*. But the principal *Point* I would *urge* is, That *such* Persons, would regularly begin to correspond with *Nature*, in both *lessening* the *Quantity*, and *lowering* the *Quality* of their *Food*, as the *Seasons* indicate, and *Providence* provides the proper *Food* in greatest *Plenty* and *Perfection*. By which they will preserve the *Ballance* of their *Health* pretty near *equal* all the *Year* round, have the *lightest* and *least* *Food*, when their *concoctive Powers* are *least*, and their *nervous Fibres* *weakest*, and *rise* in the *Food*, in *proportion* as these *rise*. Add to these, That as *Winter* is best for *Home Exercises*, *Summer* is fittest for those without *Doors*. And as the *Day* lengthens, their *Labour* and *Exercises* *abroad* ought to be lengthened out. Neither *Sydenham* nor *Fuller*, have been able to tell the Half of what obstinate
Exer-

Exercise will do, in low, cachectick consumptive Cases.

* — *Labor omnia vincit
Improbis.* ——— HORAT.

§. 7. The *Germans* have a *Proverb*, That *wise Men* ought to put on their *Winter Cloaths early* in *Autumn*, and put them off *late* in the *Spring*. By which they would insinuate, that People ought always to go *well-cloathed*. Whatever may be in this, as to Persons that drink hard, and require a plentiful *Discharge* by the *Skin*, those who are *sober*, or who would render themselves *hardy*, ought to accustom themselves to as few Cloaths, both in *Summer* and *Winter*, as is possible. Besides the general *Rule*, of having as few *Necessaries* as may be; *much* and *heavy* Cloaths, *attract* and *draw* too much by *Perspiration*; as Dr. *Keill* proves, in his *Med. Static. Britann.* *tender* and *debilitate* the Habit, and weaken the Strength, The Custom of wearing *Flanel*, is almost as bad as a *Diabetes*. Nothing

* q. d. Unweary'd Exercise will overcome any chronical Distemper.

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can *enfeeble* and *drain*, *weak* and *tender* Persons more. To make this clear, we must distinguish between *Perspiration* and *Sweating*; which differ as widely, as the daily *natural Emptying* our Bowels, and a *Looseness* or *Diarrhæa*. And as no Body in their Senses, much less the Tender and Weakly, would endeavour to encourage this last; no more ought they that other of Sweating. For as promoting *slippery* Bowels, would always keep the *Fibres* of the *alimentary* Passages *relaxed*; so would perpetual *Sweating*, those of the *Skin*. And as the *Moisture* and *Damps* that *Flanel* perpetually keeps the Skin in, and its growing so readily *dirty*, shews what a *Flux* of *Perspiration* it promotes there; so the perpetual *Friction* produced by it, gives the *Reason*. If one lays on a *superfluous Load* of *strong Liquors*, 'tis happy for him Nature *discharges* the *Ocean* any how; for he had better *sweat*, than burn in a *Fever*. But for *temperate*, *tender*, and *sickly* Persons. the more *firm* and *tight* all the *Organs* of their *Evacuations* be (if they be not totally *obstructed*) the *better* it will be for them, the more it will *strengthen* their *Nerves*, and *harden* their *Constitution*,

tion. Nothing but *Superfluity* in *Food* or *strong Liquors*, requires *Sweating*: And that is the *Reason*, the *Germans* run so much upon it. So far, that * *Tschirnhaus*, a very *learned* and *ingenious Gentleman* otherwise, resolves the *Cure* of almost all *Distempers* into *Sweating*, upon observing its Success in their *Bottle-Fevers*. They drink much *thin sharp Wine*, which passes every way; and when it comes through the *Skin*, both the *Conflict* and the *Danger* is over. But for those *Inhabitants* of our *Island*, who are *sober* because they are *tender*, or would preserve their *Health*; the *lighter* and *fewer* their *Cloaths* are, both by *Night* and by *Day*, in *Summer* and *Winter*, the *hardier* they will grow. The more open the whole *Body* is to the *Air*, provided it be *benign*, the more *fluid*, and the more *active*, will the *Animal Juices* be; and, by consequence, the more *full* and *free* will the *Perspiration* be. For right tempered *Air*, is beneficial and *medicinal* to the *Animal Juices*: And a great *Heap* of *Cloaths*, only *condenses* our own *excrementitious*

* In his *Medicina Mentis & Corporis*.

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Atmosphere about us, and stops the kindly *Influence* of this beneficial *Element*. As to catching *Cold*, he that lives *soberly*, and avoids *nitrous*, that is, *moist* or *frosty Air*, will either not readily catch *Cold*, or if he does, will soon get rid of it. It is only *Air* thus *conditioned*, that *thickens* and *coagulates* our *Juices*, and gives painful and dangerous *Colds*. It is *inward Heat* only, which destroys us. No *sober Persons* ever suffered by *Cold*, unless it were *extreme*, or that they expose themselves *obstinately* to it, against *Sense* and *Reason*.

§. 8. Another Means of *Health*, to the *Tender, Studious* and *Sedentary*, is much and often *shaving Head* and *Face*, and *washing, scraping, and paring* their *Feet* and *Toes*. The great Benefit (besides the Pleasure) to the *Head, Eyes, and Ears*, by often *shaving* the *Head* and *Face*, and *washing* them Daily in *cold Water*, with a few *Drops* of the *Compound Spirit of Lavender*, or *Hungary Water*, is best understood by those that have felt it. The Cutting off the *Hair*, and *shaving* the *Head*, will, in the *first Instance*, scarce fail to cure a *Head-ach*, a *Fluxion*, or even a nervous *Weakness* of the *Eyes*.
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Any one *Evacuation*, will not only lessen the *whole Mass*; but, if encouraged, will make that *Evacuation* more ample and full. The more and oftner the *Hair* is *shaved*, the *faster* and *thicker* it will *grow*, So that thus *shaving* the *Head* and *Face* frequently, will be like an *Issue*, or perpetual *Blister* on these *Parts*. Besides the *Washing* with *warm Water* and *Soap*, and *scraping* the *Skin* with a *Razor*, will *cleanse* the Mouths of the *Perspiratory Ducts*, from that *Morphew* and *Scurf* that adheres to them, and will extremely encourage the *Perspiration* from these *Parts*, and give a full and free *Vent*, to the *Fumes* on the *Head* and *Brain*. And *washing* well, and *dipping* in *cold Water* afterwards, will shut the *Scales* of the *Scurf-skin*, and secure against *catching Cold* in the *Head*, which is frequently a heavy *Grievance*, to *tender*, *studious* and *sedentary* Persons. Therefore I should advise *such*, to *shave* both *Head* and *Face* every *Day*, or every *other Day*, or as *often* as they possibly can, and *wash* them well in *cold Water* afterwards. What *shaving* does to the *upper Parts*, the same do *washing* and *scraping* the *Feet*, and *paring* their *Nails* to the *lower*. We know by the *Ticklishness*

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lissness of the *Soles*, what a multitude of fine *nervous Fibres* terminate in them. *Walking, Standing and Treading*, render them *callous*, and the *Skin thick and hard*; which much injures the *Perspiration*, and hinders the *Derivation* of the *Blood and Spirits* into them. And 'tis a common *Observation*, That nothing is a surer *Sign* of *strong and rank Health*, than a *kindly Heat*, and a *profuse Perspiration* on the *Feet*. It shews a full and free *Circulation* in the small *Vessels*, at the greatest Distance from the Source of *Heat and Motion*; than which nothing can more plainly *indicate great and good Health*. On the contrary, *weak and tender Persons*, are always *cold* in the *Legs and Feet*, and first of all feel *Cold* there in *frosty Weather*. Let the *Tender* therefore, and the *Weakly*, duly *once a Week*, wash in warm *Water*, *rub, scrape, and pare* their *Feet and Nails*. Which will likewise prevent *Corns, Hardnesses*, and the unnatural *Tendency* of their *Nails* into the *Flesh*. These are, 'tis true, but low and seemingly *trifling Observations* towards *Health*; but 'tis in this Case, as 'tis a more *momentous* one; *He that despiseth little Things, shall perish by little and little.*

§. 9. Those

§. 9. Those *tender* and *valetudinary* People, whose *Studies* or *Profession* oblige them to *read* or *write* much, ought, as far as they possibly can, to *stand* in an erect *Posture*, *bending* their *Head* and *Breast* as little as may be, *leaning* only on a *sloping Desk*, and continuing their *Exercises* in that *Posture*; 'till they grow *weary*; then rest, and be at it again. *Custom* and *Practice*, obstinately persisted in, will at length render the *Posture* easy to them. And 'tis inconceivable, how many and great Advantages it will bring to the *Constitution*. *Sitting*, *Bending*, and *Leaning* low, *compress* some, if not many of the *Vessels* of the Body; and so stop and retard the *Circulation* of the Blood and Juices thro' them; which makes a more ready *Flux* through the other more *patent* and *pervious* ones. Whence that *Sleepiness* and *Disability* to Motion in the *Limbs*, till the *Blood* and *Spirits*, by a proper *Posture*, get a free *Admittance* into them. From this also, there ensues an *unequable* and *subsultory* *Circulation* of the *Juices*, and an *unequable* *Secretion* in the *Glands*; and consequently, an unequal *Growth*, *Strength*; and *Vigour*;

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of the *Organs* and *Parts*, Which is the Cause of *Rickets* in *Children*; careless Nurses, neglecting to *rock*, *dandle* and *tofs* them sufficiently, that the *Circulation* of the *Juices* and *Spirits* may be equally promoted every where. And to avoid this *Inconveniency*, seems to be the *Reasons* why the *Romans* and the *Eastern Nations*, lay along, at their great *Meals* and *Feasts*, and when they were obliged to continue long in one *Posture*. Besides, that in *Writing* or *Reading*, if one sits, there is a constant *Pressure* on the *Cavity* of the *Breast* and *Stomach*, which must necessarily *weaken* their *Functions*; and these are commonly the *Organs*, which first decay in *Clerks* and *Under - Secretaries*. And *hanging down* the *Head* is the ready Way to raise *Fumes* and *Vapours* to it: Whereby such will be exposed to *Lowness* of *Spirits*, and perhaps *Consumptions*; all which are, in a great measure, avoided by an erect *Posture*: For thereby all the *Organs* will be in their *natural Situation*. Many of the *Muscles* will be in *Action*, and so press on the *Blood Vessels*, to facilitate the *Circulation*. But chiefly, by this erect *Posture*, the *Juices* will have the Advantage of their own *Gravity*, to
descend

descend with the greater *Velocity*, to *warm* and *cherish* the *lower Parts*, which are remotest from the *Source of Motion*; and the grosser *Evacuations* will be more readily *promoted*, and thereby preserve the *upper Regions clear and serene*: Which will bring great Advantages towards *Health* and *Long Life*. But this *Practice* will never become easy, unless to those who begin *young*. Those who *dictate* or *consult*, ought to do them *standing* or *walking*; which would relieve both *Body* and *Mind*.

§. 10. The *Unwieldy, Fat, and Overgrown*, besides the *Rules* already laid down, I advise, in particular, as much as is possible for them, to *abstain* from *Drink* of all kinds. No one *Rule* or *Condition*, ever was contrived, or can be, of *so great Use*, to *preserve* and *lengthen* the *Lives* of such, as an *obstinate* and *universal Abstinence* from all kinds of *Liquors*. If the *Doctrine* be true (as 'tis highly *probable*) that the *Mass* of all the *Bodies of Vegetables* and *Animals*, is only *Pipes* and *vascular Tubes*, formed all at once, in their first *Rudiments* and *Seeds*; then *Growth* and *Increase of Bulk*, is only *filling* and *plumping up*, *dilating*

and *unfolding* these *Pipes* with *Liquors* We know from *Kircher's* and *Dr. Woodward's* Experiments, to what *Bulk Vegetables* will thrive, by mere *Element* alone. Two *Pigs* of the same *Litter*, were fed upon an equal *Quantity* of *Milk*; only, to one of them, the *Milk* was mixt with the same *Quantity* of *Water*. After a *Month's* feeding, they were both *killed*, and that which had the *Water*, was found much *larger* and *fatter* than the other. *Dropsies* (at least *Anasarca's*) have been cured by an obstinate Forbearance of *Drink*. And *Lethargies* proceed from the *Moisture* of the *Brain*. And these are the two *Distempers*, *Unwieldy*, *Fat*, and *Overgrown* Persons are most subject to. Therefore, such ought to avoid *Drink*, as those do, who have the * *Hydrophobia*, or are bit by a *mad Dog*. Which they may easily bring about, if they feed only on young *animal*, and *moist* and *cool vegetable* Food. But whenever I speak of *vegetable Food*, I mean that which is dressed by *Fire*.

* *i. e.* *Dread* of Water; a Disease so called, proceeding from the Bite of a *mad Dog*.

§. 11. To the *Aged*, and those who are passing off the *Stage of Life*, I have only *two* Things to recommend, if they would make the *last Hour*, as *easy*, *indolent* and *free* from *Pain* as may be. The *first* is, That they would avoid the *Injuries* of the *Weather*, as much as ever they can. The *Blood* of the *Aged* is ever most certainly *poor* and *viscid*. Their *Perspiration* little or none at all; and their *concoctive* Powers *weak*. And consequently, they must be *subjected* to, and suffer by the weakest *Injuries* of the *Weather*. Therefore I advise *such*, to keep *Home*, provide *warm Rooms* and *Beds*, and good *Fires*, whenever the *Sky lowers*, *Winds blow*, or the *Air* is *sharp*. Such are not to expect to *raise*, *improve*, and *exalt* their *Constitutions* or *Health*. *Freedom* from *Pain*, to prevent the *vital Flame's* being extinguished by *Accidents*, and to have it *burn* as clear, and as long as Nature, at their *Age*, has designed it should, is all they ought to *aim* at. *Exercise* is only to purge off *Superfluities*. If *these* therefore, be careful not to *exceed*, they will want none, nor would it much contribute to their *Ease*. For in old Men the *Bones petrify*;
the

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the *Cartilages* and *Tendons* turn into *Bones*; and the *Muscles* and *Nerves* into *Cartilages* and *Tendons*. And all the *Solids* lose their *Elasticity*, and turn, in a great measure, into that *Earth* they are going to be *dissolved* into. So that the *Solids* wanting *Elasticity*, *Exercise* can do but little to *shake* off the *Load*. It will therefore be *enough* for *such*, to air themselves when the *Sun* lights them, and the *Summer* Breezes can *refresh* them. Or, if they would lengthen out their *Days*, to remove to a warmer *Climate*, by which they may live as long as the *Crow*. The *second* Thing I would advise *such*, is, To lessen their *Diet* gradually, as they grow *older*, before *Nature* has forced this *Diminution* upon them. This is a powerful Mean to make their old Age *green* and *indolent*, and to preserve the *Remains* of their *Senses* to the very last. By this alone, *Cornaro* lengthened out his *Days*, and preserved his *Senses*, in a great measure, intire to a *hundred Years*. He gradually lessened his *Diet* so far, that, as his *Historian* informs us, he came at last to live on the *Yolk of an Egg* three Days. I will not take upon me to advise others, in what *Measure*,

sure, either of Time or Quantity of Food, they ought to *diminish*. But this, I think, they ought to consider, That since 'tis certain aged *Persons* become *Children*, as to the *Weakness* of their *Digestions*, they ought to *diminish*, as *Children* increase in their Food, from *weaker* to *weaker*, and from *less* to *less*. For as their *Solids* are *unelastick*, their *concoctive Powers* weak, their *Perspiration* little, and the *Expences* of Living scarce any, their *Repairs* (not to *overlay* the *Spark* of *Life* remaining) ought to lessen *proportionally*. And 'tis to the Neglect of this, in *aged Persons*, that those *Rheums*, *Catarrhs*, *Wind* and *Colicks*, *Loss* of *Memory* and *Senses*, those *Aches* and *Pains*, and all that *dismal and black Train* of *Miseries*, that wait on *Long Life*, is mostly owing. Which, by a discreet and timeous lessening their *Diet*, might, in a great measure, be prevented.

§. 12. There is no *Mistake* more fatal in the Cure of chronical Distempers, incident to the Weak and Tender, than the *vain and unjust* Expectation they entertain of a *sudden* and *quick* Cure, or even of a sensible Relief. This, with
their

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their Inconstancy, and Impatience of being confined in their Appetites, makes them either throw off all Remedies and Restraints in Despair; and give themselves up to an *habitual* Indulgence in all those Things that brought on or exasperated the Distemper; or run about changing, from Doctor to Doctor, 'till they end with a *Quack*, or die under the hands of a *Mountebank*, and are *fool'd* out of their Lives and Money at once. It is surprizing that reasonable Men can imagine, that in any *small* Time; any possible Methods or Medicines should cure, or even sensibly relieve a Distemper, that perhaps was *brought with* them into the World, and *interwoven* with the Principles of their Being; or, at least, may have been *Ten* or *Twenty Years* a breeding, by *Excesses*, or an *indiscreet Regimen*. I know no fitter Similitude of the Case, than the annual *Income* of an Estate just sufficient to keep one in decent Necessaries, and due Plenty and Cleanness. If one that has such an Estate, run out every Year, for Ten or Twenty Years, and then set about to retrieve, before he become to *Starving* or a *Gaol*, would we not count him mad, if he should imagine

gine, by Retrenching, Management or Saving, even joining to those *Day-labour*, that a *few* Months or Years would recover all, and bring his Estate to its first Condition. No! he must *labour*, *abstain* and *manage* for several Years; and the Time required, will be always in a Proportion compounded of the *Rate* of his former *Expences*, and his present *Saving*. That is, If his *Expences* were but *small*, and his *Savings* *great*, the Time will be the shorter, in respect of the Time he continued his overspending. If he gives over *Saving*, he must at last most certainly starve or go to Gaol; and if he begins to save in due Time, he will certainly *retrieve* all; but the whole consists in *Labour* and *Saving* for a *due Time*. *Excesses* and an *undue Regimen*, is running out of one's Health; which, without a proper Remedy, as *Labour* and *Abstinence*, will necessarily bring a Man to *Diseases* or *Death*. And these must be continued a *Time proportioned* to the Greatness of the *Excesses*, with regard to the *Labour* and *Abstinence*. Most *chronical* Distempers have for their Parents, corrupted Fluids, and broken Solids, as has been shewn. A bad State of the *Stomach*

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and *alimentary* Organs, either beget these or accompany them. Suppose, for Example, the Case be a *scorbutick* Habit, shewing it self with *Blotches* and a *watry Ichor*, or *Bumps*, with *yellow* or *black* Spots on the Skin, a thick, viscid, *rheumatick* Blood, an obstructed *Liver*, and a constant overflowing of the *Gall*, Oppression of *Spirits*, want of *Appetite* and *Digestion*, and thereby a *Wasting*, *Lassitude*. *Inquietude*, &c. which I have often met with in your *Bon Vivants*, and your Free - Livers, who have been born healthy, vigorous and lively; I know no way in Nature to relieve and effectually cure this Case, but by often-repeated, gentle *Vomits* and *Stomach Purges*, as the *Choler* (which certainly degenerates into *Flegm*, before the Cure be brought about; for *Flegm* is but *Choler* more diluted, or the grosser Part of the *Serum* only, as *Choler* is that of the whole *arterial Fluid*; and when *Choler* is come to *Flegm*, the Cure is half carried on, one Part of the Fluids being already purified. and the *Liver* free and open; As the *Choler*, I say,) and the *Flegm* rises and loads the alimentary Passages; *Bitters*, *Aromaticks* and *Steel* varied and prescribed, according

according to the Strength of the Patient, and one kind as another has lost its Virtue; *Chalybeat* and *Mineral Waters*, constant *Labour* and *Exercise*; a *cool, light, spare Diet*, and constant proper *Regimen*, long and obstinately persisted in. The Patient will often complain, What! *Vomits* and *Bitters*, *Gallopings* and *Fasting* for ever! *Vomits* only relieve for a few Days, but do not *cure*: We grow as bad as ever again, and in some Months Perseverance, find ourselves just where we began. New Doctors must be had, and they must either be cashier'd if they pursue the same Intentions (which, if they be honest Men, they must do) or else must write Things that can neither do Good nor Harm, or those which will actually hurt, for their Fees (for there is no *Medium*) till the miserable Person has run thro' the whole Faculty, and at last got into the *Charlatan* Tribe. It is certain, that when Nature has begun to throw the gross and viscid Parts of the Juices on those loose and spongy Glands, it will continue so to do, till it has deflegmated the whole Mass: and every new Vomit will make Room for another; and there is no other Remedy as long as

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there is any viscid Humour remaining, nor can the Decline of the Disease be discovered so certainly by any Thing, as by the Lessening of the Quantity ex-
cerned, and the Lengthening of the In-
tervals: As in a Vessel of Oil and
Water incorporated, a sure Way to se-
parate the Oil from the Water is, to
skim it off as it comes to the Top. Now
as long as there is any Oil remaining it
will swim, if you but give it Time to ex-
tricate itself from the Embraces of the
Water, and then you may separate the vis-
cid Mixture intirely. No great Purpose
in Life was ever brought about, but by
Time and *Patience*, and by constantly
pursuing the most natural and best ap-
proved Means that lead towards that
End. Nature works not by sudden
Jumps and Starts, but goes on steadily,
fortement & doucement, and 'tis Nature
that is the true Physician: Art only re-
moves Obstacles, checks Violences, and
gently sollicitates Nature the Way she
tends. This requires *Time* and *Pati-*
ence. *Tempus edax Rerum*. It most cer-
tainly consumes chronical Diseases, if
not fuelled and fed; *Nothing else* can.

§. 13. In fine, Providence has been kind and gracious to us beyond all Expression, in furnishing us with a certain *Relief*, if not a Remedy, even to our most *intense Pains* and *extreme Miseries*. When our Patience can hold out no longer, and our Pains are at last come to be *insupportable*, we have always ready at Hand a Medicine, which is not only a present Relief, but, I may say, a standing and *constant Miracle*. Those only who have wanted it most, and have felt its friendly and kind Help in their Tortures, can best tell its *wonderful Effects*, and the great *Goodness* of Him who has bestowed it on us. I mean *Opium*, and its Solution *Laudanum*, which, when properly prescribed, and prudently managed, is a most *certain* and *sudden* Relief in all *exquisite* and *intense* Pain. The *Manner of its Operation* may be gathered, from the Observations I have made in the preceding Treatise. Pain constricts, crisps up, shortens and contracts animal Fibres. It acts like a Wedge in tearing, rending and dividing these small Filaments; it does to them in a living Body, what the Points of Salts do to all animal Substances,

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stances, which are to be preserved for Food, *viz.* hardens, stiffens and contracts them. The Fibres of live Animals being contractile, tonick and springy, when a hard pointed Body enters them (which is the Case in all bodily Pain) the Parts by their contractile Nature, fly from, recede, and shun, as much as possibly they can, the wounding Instrument. This appears in the large Gash of a Wound, made across the Fibres of a Muscle; in the continual Bending towards the other Side, when any Part of one is pained; in the *Cramps* and *Convulsions*, nay, and sometimes *Fevers*, produced by intense *acute Pain*. Pleasure, on the contrary, *relaxes* the Fibres by a gentle, soft, and bland, or (as the *Mathematicians* speak) a commensurate and harmonious Touch. It acts on the Fibres as two unison and concordant musical Instruments act on one another, and by stroaking, softening and smoothing, comes at last intirely to relax and unbend them. The Parts of the Fibres run after, follow and pursue, and at last break their Union in some Degree, to reach such a demulcent Touch. Some Persons have had the Faculty to allay

allay Pain, by gently smoothing the afflicted Part with their Hands; which in some Measure was true of the *Touching Doctor*. Soft Oils, and emollient Herbs, with gentle Warmth, by *relaxing* the crisped Fibres, will allay *Pain*. Soft Beds and Cloaths, and tepid Baths will relax and weaken the whole Habit. Now since Pain so certainly crisps up, constricts and *contracts* animal Fibres, and since *Opiates* infallibly, if duly dosed, relieve and *ease* Pain, I can see no possible Way it can effect that, but by *relaxing* and *unbending* these Fibres as much, or near as much, as Pain contracts and draws them up. And that this is the real Fact, we may observe from many Effects of *Opiates*. 1. Nothing is so powerful, or so certain a *Diaphoretick* as an *Opiate*. Nothing causes such plentiful Sweating, especially if joined with *Volatiles*, and promoted with plentiful drinking small, warm Liquors. This it can do only by relaxing the Fibres of the Skin and Perspiratory Glands. 2. Nothing so much *palls* the *Appetite*, and *weakens* the first *Digestions*, as the frequent Use of *Opiates*; insomuch, that most People, after a liberal Dose of
them,

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them, seldom fail to reach, and never care for Food for a considerable Time after, till their Effects are wrought off; which are the constant Symptoms of a *relaxed Stomach and Guts*. 3. Nothing so much promotes the *Eruption* of the Small-Pox and Measles, the *Expulsion* of the Stone and Fœtus, the Monthly, and the After-Birth *Purifications* of the Sex, as *Opiates*; insomuch, that in difficult Births, they are now the only Resource of the Midwife Physicians; and, when joined with *Volatiles*, will bring on the most powerful and *vigorous* Throws, in the most weak and *languishing* Constitutions. These Effects they can produce only by *relaxing* those Fibres Pain has *contracted* and render'd unelastick in some measure. 4. Nothing quiets and stops *Cramps*, *Convulsions* and *Hysterick Fits*, so suddenly and certainly as *Opiates* do. And every one knows these arise from violent Contractions, and crisping up of the muscular Fibres. All these, and many more such Effects, *Opiates* produce, by *unbending*, *loosening*, and *relaxing* those Fibres violent and acute Pain had constricted and *contracted*, and by giving a Respite and Reprieve from its Tortures, and

and thereby allowing Nature (the only true Physician) to go undisturbed about its own Work. The Way it stops Purging, and cures a *Diarrhæa*, I take to be by carrying off the sharp and watry Humours in the Bowels by *Perspiration*, which *Opium* exceedingly promotes; by quieting those *Spasms* and *Convulsions*, and allaying those *Stimulations* excited by Purging; and settling and calming the Violence of the *Peristaltick* Motion of the Guts, which *hurries off* their Contents. I will not take upon me here, to determine the proper Cases for *Opiates*, or their *Doses*. That is the Business of the Physician. But in general I may say, Wherever Pain is *acute, intolerable* and *past* enduring, where it may indanger *Convulsions*, a *Fever* or *Inflammation*; after premising the proper universal *Evacuations* (such as Bleeding, Blistering, Cupping, Purging or Glistering, as the Case requires, or will bear) *Opiates* then will most certainly relieve, and may be safely administred. If the Case is attended with *Vomiting*, solid *Opium* will do best; because it will be in a smaller Volume, and will not be so readily rejected. If speedy Relief be required

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where there is no Vomiting, then *Laudanum* will disperse soonest through the Habit, because *Liquid*, and joined with a Spirituous Vehicle will *soonest* effect the Design, raise the oppressed Spirits more, and penetrate deeper and quicker. In common Cases a vinous Vehicle will be sufficient, because *Opium* is best dissolved in Wine, to make *Laudanum*. There are *four Cases*, in which 'tis absolutely and eminently necessary; the *Cholick*; the *Stone*; the hard *Labours*, After-Birth and Monthly sluggish *Purifications* of the Sex, especially if attended with violent Pain, as is common in such Cases; and in the *Gout* and *Rheumatism*. In the *first*, it ought always to be given with some Stomach Purge, as *Elixir Salutis*, or *Tincture* of *Hiera Picra*, with *Syrup* of *Buckthorn*, and in those of more tender Bowels, with *Tincture* of *Rhubarb*; especially if the Cholick is in the lower Bowels and attended with no Vomiting; in which Case an artificial Vomit is to be premised, if Circumstances forbid it not. In the *Stone* it ought to be given with *Oil* of sweet *Almonds*, or in some soft *Emulsion*, to lubricate the Parts. In the *two last Cases*, it ought always to be
be

be given with proper *Volatiles*, *Anti-hystericks* and *Attenuants*. In violent and acute Pain, the first Dose ought to be large, at least from *thirty* to *forty-five* Drops of liquid *Laudanum*, or its Equivalent in *Opium*, from *two* Grains and a half, to *three* and a half; and afterwards to be increased by *fifteen* Drops of Liquid, or half a Grain of solid *Laudanum* every half Hour, till the Pain begin to remit; and then an intire stop is to be put to its Administration. And thus the End will be obtained without any Fear of *over-dosing*. And the Truth is, there is less Hazard of that, than Persons are aware. For those who die of an Over-dose of *Laudanum* in the *Opinion of the World*, would have lived few Days without it. For there are those that by Custom, have brought themselves to *two Drams* of solid, that is, near *six Ounces* of liquid *Laudanum* a Day. And I know a Gentleman who took near *three Ounces* at once, instead of *Elixir Salutis*, and had *never* taken any in his Life *before*; who (though it extreamly weakened his Stomach for some Time, and that he dosed almost a Month under it) yet *did well*, and, for ought I know, is alive

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still, though it be many Years since. If the preceding Dose be rejected by Vomiting, about a Third Part may be supposed to stay; and then the subsequent Doses may be proportioned accordingly. The Difference of Constitutions will make no great Alteration here, since very *weak* Persons seldom suffer very *violent* Pain, which is the only Case I am here considering.

§. 14. To draw towards a Conclusion. The *Grand Secret* and Sole Mean of Long Life, is to keep the Blood and Juices in a due State of Thinness and *Fluidity*, whereby they may be able to make those Rounds and Circulations through the animal Fibres, wherein Life and Health consist, with the fewest Rubs and least Resistance that may be. In spite of all we can do, Time and Age will *fix* and *stiffen* our *Solids*. Our original Frame and Make renders this unavoidable and necessary. As in the *greater* World, the * Quantity of the Fluids is Daily lessening and decreasing; so in our *lesser* World after

* See Sir Isaac Newton's Princip.

a limited Time, the Appetite and Concoctions failing, the *Fluids* are lessened and spent on the continual Repairs of the Solids, and thereby lose their Nature, and become firm and hard. For by insinuating themselves into all the Pores of the *Solids*, and the Interstices of their Parts, and straitening and damming up the small Vessels, which carry in Nourishment to the internal Substance of the Solids, and so depriving them of their *Moisture* and Lubricating Juices, these Solids come at last to harden, stiffen and fix, and thereby lose their *Elasticity* and Springiness. Here the Process is *Mechanical* and *Necessary*. Age and Time, by weakning the Concoctions, impairing the natural Heat, which consists in a brisk and extended Circulation of the Juices, by the turning those *Juices* into *solid* Substances, and thereby fixing and hardning these Solids, and depriving them of their due Elasticity, the *Fluids* circulate with less *Velocity* and Force, and seldom reach the *Extremities* and *smallest Vessels*, but pass through the more *patent* and larger *Vessels*, by their *biggest* lateral Branches. And if with all these unavoidable and irremediable

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Circumstances, both the nutritious and ferous Part of the *Blood*, and the globular, become *viscid*, *thick* and *glewy*, the Circulation must stop at last, and come to an End. Now 'tis certainly in a great measure in our Power to maintain the *Juices* in a due State of *Fluidity* and *Thinness*, and to render them such, if they are not corrupted to an extreme Degree, so that the remaining Part of Life be not too short for such a tedious Work. We certainly may *dilute* and *thin* any *Fluid*, that has an Inlet and Outlet. And the more *fluid* a circulating Liquor is, that is, the *smaller* and *finer* its Parts are, the *less Force* it will require to set it a going, and to continue its Motion. And in animal Bodies the thinner and more *fluid* the Juices are, they will not only circulate by the *less Force*, and with *less Resistance* (i. e. *Pain*) but also, they will preserve by their Circulation, the *Solids* the longer from *stiffening* and *hardening*. There is not a more mischievous, nor greater Mistake than the common one, that *thin* Blood is *poor* Blood, which the Vulgar and Herd of Mankind are as terribly affrighted for, as outward Poverty and Want.

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For, on the contrary, the *thinnest* and most *fluid* Blood is the *richest*, that is, the *best* Blood (if *rich* and *good* mean the same Thing). For in *Hydropical*, *Anasarca*, *Cachectick*, and *Scorbutick* Persons, both the serous and globular Part of the Blood is *thick*, *glewy* and *acrimonious*, so that it can neither get thro' the *small Vessels*, nor can it be long contained in them, but corrodes and frets them, and so falls (at least the thinnest Part of it) into the Cavities, and begets a *Dropsy*; or stops in and obstructs these small Vessels, and so becomes an *Anasarca* or *Scurvy*. In all which Cases, the serous Part is overloaded with urinous Salts, and becomes a perfect *Lixivium*; so that by its *Grossness* it cannot run into Globules, to facilitate the Circulation through the *Capillaries* (for these small elastick Globules, by turning Oval or Oblong, wonderfully facilitate the Circulation of the Juices through the *small Passages*) and the red or globular Part becomes a mere Cake of *Glue*; and thus the Quantity of *Serum* is increased, and the Quantity of the globular Part gradually lessened. And in *this* Sense (of a greater proportion of *Serum*) this State of the Blood may be called

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called *thin*; but it can in no Sense be called *good* Blood. The thinnest and most fluid Blood, is ever to be look'd upon as the *best* Blood, as consisting of *finest* and *smallest* Parts, which most readily runs into red Globules, and most easily circulates thro' the *capillary* Vessels, which is the most solid Foundation of good Health and Long Life. Now as nothing but indulging in strong high Foods, which the concoctive Powers cannot break and divide into Parts *small* enough to run into red Globules, or circulate through the *small* Vessels, but overstock them with urinous Salts, which run into *Clusters*, and first *obstruct*, and afterwards *break* these small Vessels, and in wallowing in strong Liquors, which parboil and *eat out* the tender and delicate Fibres of the Solids; I say, as nothing but such an Indulgence, and such Excesses, long continued and obstinately persisted in, can beget such a State of the Fluids and Solids, and so bring on a *Cachexy*, which may end in a *Dropsy*, or some other fatal chronical Distemper, according to the Habits and particular Make and Constitution of the Party (for no Person that lived low and meagre, and drank
only

only small and thin Liquors, ever became Hydropical, if his Solids were originally firm, and his Fluids not tainted with some *hereditary* Sharpness) so I know nothing under the Sun, that can solidly and fully effectuate the contrary State of the *Blood* and *Juices*, to render them *thin*, sweet, and in a constant *flowing* Condition, but taking the contrary Measures, and keeping to a strict Regimen of a *thin, fluid*, spare and lean Diet. We have no possible Way to attenuate, clean and dilute a *Vessel* full of *gross, glewy*, and foul Mixtures, that has only a small Inlet and Outlet, but by pouring into it a thin, clear, insipid *Fluid*, and by shaking it often and much. It is much the same with an animal Body. No *voluptuous* or *lazy* Person, unless he has had an original Constitution of *Brass*, was ever a *long Liver*. And even then, as his Life has been more Misery and *Pain*, than ever a *sober Gally Slave* endur'd, his End, and the latter Part of his Days has been Rack and *Torture, Horror* and *Despair*. And though he has not had the Hope nor *Consolation* of a Martyr, yet his *Sufferings* has been far more *exquisite* and *extreme*. All those who have lived

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long and without much Pain, have lived *abstemiously*, *poor* and *meagre*. *Cor-naro* prolonged his Life, and preserved his Senses, by almost *starving* in his latter Days; and some others have done the like. They have indeed thereby, in some measure, weakned their natural *Strength*, and qualified the Fire and Flux of their *Spirits*: But they have preserved their *Senses*, weakened their *Pains*, *prolonged* their Days, and procured themselves a gentle and quiet *Passage* into another State. Gentle domestick *Purges* frequently repeated, due *Exercise*, and the Use of the other *Means* prescribed in the foregoing Treatise, will mightily *contribute* toward this End. But the *Ground work* must be laid, carried on, and finished in *Abstemiousness*; and though not in absolute *Fasting* (for that is no ways required, and would be prejudicial) yet in a *thin*, *poor*, *low*, *light* and *meagre* Diet. All the rest will be insufficient without *this*. And *this* alone, without *these*, will suffice to carry on Life, as long as by its natural Frame it was made to last, and will make the Passage *easy* and *calm*, as a Taper goes out for want of Fuel.

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Miscellany RULES of Health
and Long Life.

1. *CHRONICAL* Diseases *last long*, wear out the Constitution *leisurely*, and are accompanied with a slow Pulse; whereas *acute* ones soon *terminate* either in Death or Recovery, and are joined with a *quick* Pulse.

2. The *Scurvy* is the *Root* of most *chronical* Diseases of the *British* Nation; and is a necessary Consequence of their Way of *living* almost wholly on *animal Food*, and drinking so much *strong Liquors*.

3. *Soft, thin, small, short, fair Hair*, *slender* Muscles and Bones; *soft* Flesh; a *white, fair, blanch'd* or *ashen-coloured* Complexion; a *fair, corpulent, flegmatick, cold* Constitution; *Chilliness*, especially in the *Feet*; a Readiness to *catch Colds*; and being subject to immoderate *Evacuations* of any kind, are *certain Signs* of loose, flabby, or *relaxed Nerves*.

4. *Women* of weak Nerves are very subject to *Miscarriages*. Their Danger is increased by *high Living*, and indiscreet *Bleeding*. The only Remedy for them, is drinking *Bristol Water* and red Wine, with a *low* and *light Diet*, going Abroad to get Air, and using *Astringent Plaisters*, and other proper *Medicines* to corroborate their Bowels.

5. The *Weak* and *Sickly* (as their Conductive Powers fail in Winter, and recover in Summer) should carefully proportion the Quantity and Quality of *their Food*, to the Strength of them in the several *Seasons*.

6. The *fewer Cloaths* one uses, the *hardier* he will be. Flannel and great *Loads of Cloaths* by Day or Night, *relax* the Fibres, and *promote* only *Sweating*, instead of the natural and beneficial *Perspiration*.

7. The *Weak, Sedentary* and *Studios*, should frequently *shave* their Head and Face, *wash* and *scrape* their Feet, and *pare* the Nails of their Toes.

8. People

8. People that *read* and *write* much, ought to do them *standing*, or in as *erect* a Posture as they can. And those who can go about any Part of their *Studies walking*, should do it.

9. The *Fat, unweildy* and *over grown*, ought to *avoid* all manner of *Drink*, strong and small, and even *Water* itself, as much as possible. And if their Food be *Vegetables* and *young Animals*, they will have *little Occasion* for any Liquor.

10. The *Aged* should (1) carefully guard against all the *Injuries* of the *Weather*; and (2) *lessen* the Quantity, and lower the Quality of *their Food gradually*, as they grow *older*; even *before* a manifest *Decay* of Appetite *force* them to it.

11. As *chronical* Diseases are not brought on all at *once*; so they cannot be *quickly* removed. A *gradual* Corruption, must be *gradually* remedied. 'Tis contrary to the Nature of *chronical* Diseases to be *quickly* cured.

12. In

12. In all acute and *vehement Pain*, *Opium* is the sovereign *Relief*, particularly in the *Colick*, *Stone*, *Gout*, *Rheumatism*, and hard *Labour* of Women. It operates by *relaxing* and unbending the Fibres, *overstretched* and crisped up by *Pain*.

13. The *great Secret* of *Health* and *Long Life*, lies in keeping the Blood (and consequently the other Juices of the Body) in a due Degree of *Fluidity*.



CONCLUSION.

TO *Conclude*, without taking the Benefit of *Revelation*, which, in a Sense relating even to our *mortal Bodies*, has *brought Life and Immortality to Light*; if but the Precepts of the *Pagan Philosophers* were observed,

———*Servare Modum, Finemque tueri, Naturamque sequi.*———

If

If Men would but observe the *golden Mean* in all their *Passions, Appetites* and *Desires*; if in all their *Thoughts, Words,* and *Actions*, they would but mind, I will not say the *End* of their *Being* and *Existence* here, but the *End* to which their *Thoughts, Words* and *Actions* naturally tended in their last *Resort*; And, *Lastly*, If in the *Gratifications* of their *Appetites, Passions* and *Desires*, they follow'd the uncorrupted *Dictates* of *Nature*, and neither spurred her on beyond her *Craving*, nor too violently restrained her in her *innocent Biass*; they would enjoy a greater Measure of *Health* than they do; have their *Sensations* more *delicate*, and their *Pleasures* more *exquisite*; live with less *Pain*, and die with less *Horror*. For had it not been for the *Lewdness, Luxury* and intemperate *Gratifications* of the *Passions* and *Appetites*, which first ruined and spoiled the *Constitution* of the *Fathers*, whereby they could communicate only a *diseased, crasy* and *untuneable Carcass* to their *Sons*, so that with the *World's Decay, vicious Souls* and *putrified Bodies*, have in this our *Age*, arrived to their highest and most exalted *Degrees*; I say, Had it not been for these *Evils*, there never had hap-

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happened so much *Sickness*, *Pain* and *Misery*, so *unhappy Lives*, and such *wretched Ends*, as we now behold among *Men*. But even in this our *lapsed Estate* and *Condition*, had the *Dictates* of *Nature* and *Reason*, not to say *Religion*, been followed; we might have passed our *Days* in *Indolence* (at least from *chronical* Distempers) if not innocent *Pleasures*, arrived at a *good old Age*, with our *Senses* free, and our rational *Faculties* clear, and at last departed in *Peace*, as a *Lamp* goes out for Want of *Oil*. And let the Gentlemen of *Wit* and *Fire*, of *Banter* and *Sneer*, hug themselves ever so much in their boasted *Tranquillity* and *Security*, gratify their *Passions*, *Appetites* and *Humours* to the *Full*, and despise *Futurity* and *Whining*; I dare promise, when the *Farce* is ended, and the *last Minutes* are drawing on, they would prefer a *Life* thus *led*, and an *End* so *calm*, to all the *Pleasures* of *Lewdness* and *Sensuality*, and the *Bounces* of a false and ignorant *Security*.



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